

**Climatological Data for November, 1909.**  
**DISTRICT No. 1, NORTH ATLANTIC STATES.**

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**GENERAL CLIMATOLOGICAL CONDITIONS.**

The month of November, 1909, was characterized by unusually mild and pleasant weather throughout the greater part of the district; a decided and general deficiency in precipitation, except for a small area on the New England coast, and the absence of severe storms or sudden changes of temperature.

The drought continues serious over the Delaware, Susquehanna, Potomac, and Rappahannock watersheds with the water in these streams and their tributaries at a very low stage.

**TEMPERATURE.**

The average temperature for the month was everywhere above the normal, the departures being generally greatest in the interior and least along the coast. In parts of West Virginia, Pennsylvania, and New York the daily excess of temperature ranged from 5° to 8°, while along the coast from Virginia to Maine the departures were generally less than 3°. The month as a whole was the warmest November, in most parts of the district, since 1902, and among the warmest in the past 25 years. The maximum temperatures were generally not excessively high, but the large number of days when the average temperature was above normal was quite remarkable. The minimum temperatures as a rule were not so low as usually occur in November, and while freezing weather occurred at frequent intervals, no exceptionally low temperatures were reported.

The month opened decidedly warm, especially over the southern part of the district where the maximum temperatures of the month were generally recorded on the 1st or 2d. In Virginia, Delaware, Pennsylvania, and New Jersey the temperature on these days ranged generally from 75° to 80°; at a few stations it was above 80° and at 1 station, Annapolis, Md., the maximum reached 85°. Moderately warm weather prevailed also over New England and New York on these days, but the temperatures were not generally so high as on the 12th and 13th, when the second warm period of the month overspread the district. On these dates the heat was excessive for the season, especially at points in the interior, and at many stations the maximum temperature recorded on the 12th was higher than any previous November record.

The third warm period of the month occurred about the beginning of the third decade and while general over the district was not so prolonged nor was the heat so marked as during the periods above mentioned.

The most general and pronounced cold periods of the month occurred about the 10th, 19th, and 30th, although the minimum temperature of the month was recorded at many individual stations on other dates.

Following the warm period at the opening of the month there was quite a rapid decline in temperature, especially during the 5th and 6th, which culminated in moderately low temperatures in parts of the district on the 7th and over most of the district by the 10th.

The cold weather at the close of the second decade was more noticeable over the southern part of the district than elsewhere and was occasioned by the presence of an extensive area of high barometric pressure over the South Atlantic States. Freezing temperatures were general at this time except along the coast from Long Island southward.

The most pronounced cold period of the month, especially in the northern part of the district, occurred on the 30th when another area of high pressure, accompanied with moderately low seasonal temperatures, overspread the North Atlantic States. In New England and New York the minimum temperature on the 30th ranged generally from 10° to 20° below freezing. The low-

est temperature reported in the district was 8° at New Lisbon, Otsego County, N. Y., on the 30th.

**PRECIPITATION.**

The average precipitation for the district as a whole was much below the November normal, only 2 small areas, the central part of Maine and the eastern part of Massachusetts, receiving more than the average amount. For New England the average for the month was nearly 3 inches, which, although over 1 inch below the normal, is the highest average since 1900. The heaviest rainfall in the district occurred along the Massachusetts coast, in the vicinity of Cape Cod, where the total for the month averaged somewhat over 6 inches, and the least, 1 inch or less, over the lower Susquehanna, the Potomac, and Rappahannock watersheds.

The drought brought about by the deficiency of precipitation which has been practically continuous since July 1 in that part of New York, Pennsylvania, Maryland, Delaware, and Virginia included in the district, has not been relieved, except in a few localities, by the rains of the current month. The soil is very dry, the streams low, and the outlook for water supply for stock and other purposes for the winter months extremely discouraging.

The rains during the first decade were generally light and scattered both as to distribution and time, some localities receiving a fairly copious rainfall while at other points little or none occurred. On the 17th rains were quite general over the district, but the amounts were scanty. The most general and widespread precipitation of the month occurred with the storm that passed over the district from the 23d to the 25th. In the more northerly sections, particularly New England, New York, and parts of Pennsylvania, the precipitation was mostly in the form of snow, while elsewhere snow mingled with sleet and rain occurred. The heaviest precipitation from this storm, which, however, did not extend far into the interior, was along the New England coast, excessive precipitation, 2.50 inches or more in 24 hours, being reported from 6 stations in Massachusetts and 1 in Maine. At Plymouth, Mass., a 24-hour rainfall of 4.36 inches was recorded on the 23d and 24th.

The snowfall during this storm was moderately heavy for the season and was general over the northern and central parts of the district. The fall was heaviest in eastern New York and the northeastern part of Pennsylvania, where the average was about 5 inches. At a number of stations in the lower Hudson Valley the total snowfall for the month ranged from 8 to 14 inches.

**RIVER CONDITIONS.**

There has been no increase in the volume of water in the principal rivers and streams in most parts of the district during the month. In parts of New England, where the rivers and streams were well filled by the copious rains in September and again during the latter part of the current month, the flow of water is generally good, but for the remainder of the district the gage readings show an extremely low stage.

The average readings for the month from 6 stations on the Mohawk and its tributaries was about 1.6 feet above the zero, and for 3 stations above tidewater on the Hudson, 1.8 feet.

There was a slight temporary rise in most streams about the 25th.

The readings on the Delaware at Port Jervis, Phillipsburg, and Trenton averaged about 1.0 foot below those of November, 1908, while the Susquehanna at Harrisburg and Wilkes-Barre averaged about 0.5 feet below last year.

## MISCELLANEOUS.

The number of days on which precipitation occurred averaged 7 for the district as a whole and ranged from 3 in Virginia to 10 in New England. The average number of clear days was 13; partly cloudy, 8, and cloudy, 9. The amount of cloudiness for the month was greatest over New England and the northern part of New York, and least over Virginia.

The variation in the amount of sunshine received in different parts of the district, as shown by the records of recording instruments, presents some interesting features.

It is well understood that the number of hours the sun is above the horizon and, therefore, the possible duration of sunshine varies with the season and the latitude. For the month

of November the total possible sunshine for the southern extremity of the district was about 302 hours and for the northern extremity about 289 hours, making a total variation of about 13 hours. The average actual number of hours of sunshine for the district as a whole was 141, which is about 50 per cent of the possible. There was much less sunshine in New England during the month than elsewhere, the percentage being 41 against 55 for the remainder of the district. The greatest percentage was 67 at Washington, D.C., and the least 29 at Burlington, Vt. There were 9 days during the month when the sunshine averaged 80 per cent of the possible, or more, 11 days when the average was between 20 and 80 per cent, and 10 days with 20 per cent or less.

## MONTHLY WEATHER REVIEW.

NOVEMBER, 1909

TABLE 1.—Climatological data for November, 1909. District No. 1, North Atlantic States.

| Stations.             | Counties.     | Elevation, feet. | Length of record, yrs. | Temperature, in degrees Fahrenheit. |                            |          |       |         | Precipitation, in inches. |                       |        |                            |                       | Sky.                    | Prevailing wind direction.    | Observers.            |                             |                       |       |
|-----------------------|---------------|------------------|------------------------|-------------------------------------|----------------------------|----------|-------|---------|---------------------------|-----------------------|--------|----------------------------|-----------------------|-------------------------|-------------------------------|-----------------------|-----------------------------|-----------------------|-------|
|                       |               |                  |                        | Mean.                               | Departure from the normal. | Highest. | Date. | Lowest. | Date.                     | Greatest daily range. | Total. | Departure from the normal. | Greatest in 24 hours. | Total snowfall unmeted. | Number of partly cloudy days. | Number of clear days. | Number of .01 inch or more. |                       |       |
| <b>Maine.</b>         |               |                  |                        |                                     |                            |          |       |         |                           |                       |        |                            |                       |                         |                               |                       |                             |                       |       |
| Bar Harbor.           | Hancock.      | 20               | 23                     | 41.4                                | + 2.5                      | 62       | 31    | 20      | 19†                       | 39                    | 5.77   | + 0.62                     | 2.75                  | 2.0                     | 10                            | 11                    | 6                           | 13 sw.                |       |
| Cornish.              | York.         | 778              | 54                     | 39.8                                | + 4.7                      | 74       | 12    | 18      | 19                        | 30                    | 2.06   | - 1.53                     | 0.40                  | 5.0                     | 10                            | 7                     | 11                          | 12 n.                 |       |
| Eastport.             | Washington.   | 53               | 37                     | 40.2                                | + 3.4                      | 57       | 3     | 20      | 19                        | 24                    | 3.62   | - 0.46                     | 1.27                  | 2.4                     | 13                            | 6                     | 7                           | 17 w.                 |       |
| Fairfield.            | Somerset.     | 90               | 24                     |                                     |                            |          |       |         |                           |                       |        |                            |                       |                         |                               |                       |                             |                       |       |
| Farmington.           | Franklin.     | 450              | 13                     | 37.8                                | + 4.5                      | 70       | 12    | 15      | 10                        | 37                    | 3.82   | - 0.54                     | 1.84                  | 3.5                     | 12                            | 7                     | 12                          | 11 ne.                |       |
| Gardiner.             | Kennebec.     | 163              | 17                     | 40.2                                | + 3.5                      | 67       | 12    | 19      | 10                        | 33                    | 3.88   | - 0.28                     | 1.60                  | 4.5                     | 12                            | 10                    | 6                           | 14 sw.                |       |
| Greenville.           | Piscataquis.  | 1,000            | 54                     | 34.3                                | -                          | 62       | 12    | 12      | 19                        | 45                    | 5.47   | -                          | 1.86                  | 6.2                     | 13                            |                       |                             | se.                   |       |
| Houlton.              | Aroostook.    | 362              | 7                      | 36.0                                | -                          | 57       | 3     | 14      | 19†                       | 29                    | 2.34   | -                          | 1.60                  | 5.0                     | 14                            |                       |                             | U. S. Weather Bureau. |       |
| Lewiston.             | Androscoggin. | 185              | 37                     | 37.0                                | + 1.3                      | 66       | 12    | 18      | 10                        | 34                    | 2.75   | - 1.64                     | 0.86                  | 3.1                     | 12                            | 8                     | 14                          | nw.                   |       |
| Madison.              | Somerset.     | 257              | 6                      | 35.3                                | -                          | 58       | 13†   | 12      | 19†                       | 27                    | 4.07   | -                          | 1.43                  | 3.8                     | 12                            | 10                    | 4                           | 16 sw.                |       |
| Millinocket.          | Penobscot.    | 338              | 6                      | 37.1                                | -                          | 60       | 12    | 11      | 19†                       | 32                    | 4.92   | -                          | 1.39                  | 5.8                     | 12                            | 7                     | 5                           | 18 sw.                |       |
| North Bridgton.       | Cumberland.   | 450              | 18                     | 40.0                                | + 3.0                      | 73       | 12    | 18      | 19                        | 37                    | 2.71   | -                          | 2.35                  | 1.41                    | 10                            | 5                     | 14                          | 11 sw.                |       |
| Orono.                | Penobscot.    | 129              | 40                     | 39.1                                | + 4.9                      | 63       | 12    | 16      | 10                        | 35                    | 4.14   | - 0.03                     | 1.80                  | 0.5                     | 11                            | 3                     | 6                           | 16 sw.                |       |
| Patten.               | Penobscot.    | 550              | 7                      | 34.8*                               | -                          | 55       | 3     | 11      | 20                        | 32*                   | 4.19*  | -                          | 1.41*                 | 6.0*                    | 9*                            | 8*                    | 4*                          | 13* w.                |       |
| Portland.             | Cumberland.   | 99               | 38                     | 40.9                                | + 3.3                      | 66       | 12    | 22      | 30                        | 27                    | 2.83   | - 0.97                     | 1.33                  | 2.8                     | 9                             | 7                     | 11                          | 12 n.                 |       |
| Rumford Falls.        | Oxford.       | 505              | 16                     | 36.8                                | + 2.7                      | 60       | 12    | 18      | 10                        | 36                    | 3.26   | - 1.42                     | 1.68                  | 3.2                     | 12                            | 16                    | 5                           | 9 nw.                 |       |
| Van Buren.            | Aroostook.    | 510              | 7                      |                                     |                            |          |       |         |                           |                       |        |                            |                       |                         |                               |                       |                             |                       |       |
| Winalow.              | Kennebec.     | 90               | 14                     | 38.0                                | -                          | 65       | 12†   | 16      | 9†                        | 36                    | 4.35   | -                          | 1.97                  | 3.8                     | 12                            | 14                    | 7                           | 9 w.                  |       |
| <b>New Hampshire.</b> |               |                  |                        |                                     |                            |          |       |         |                           |                       |        |                            |                       |                         |                               |                       |                             |                       |       |
| Alstead Center.       | Cheshire.     | 1,120            | 5                      | 38.4                                | + 3.4                      | 65       | 12    | 16      | 30                        | 25                    | 1.69   | - 2.83                     | 0.67                  | 4.0                     | 11                            | 11                    | 8                           | 11 sw.                |       |
| Benton.               |               |                  |                        | 38.8*                               | -                          | 70       | 12    | 14*     | 30                        | 30*                   | 1.56*  | -                          | 1.00*                 | 1.86                    | 11                            | 9                     | 10                          | nw.                   |       |
| Bethlehem.            | Grafton.      | 1,470            | 17                     | 36.0                                | + 3.4                      | 65       | 12    | 7       | 30                        | 30                    | 2.47   | -                          | 1.24                  | 0.89                    | 10                            | 12                    | 4                           | 14 w.                 |       |
| Concord.              | Merrimac.     | 350              | 40                     | 40.8                                | + 4.0                      | 73       | 12    | 17      | 10                        | 35                    | 2.12   | -                          | 1.27                  | 1.26                    | 3                             | 8                     | 5                           | 17 nw.                |       |
| Durham.               | Stafford.     | 88               | 14                     | 41.4                                | + 2.4                      | 73       | 11    | 17      | 30                        | 37                    | 2.47   | -                          | 2.01                  | 1.28                    | 20                            | 6                     | 16                          | 5                     | 9 nw. |
| Franklin.             | Merrimac.     | 440              | 10                     | 40.0                                | -                          | 73       | 12    | 15      | 19                        | 36                    | 2.65   | -                          | 1.40                  | 2.0                     | 11                            | 10                    | 3                           | 17 nw.                |       |
| Grafton.              | Grafton.      | 863              | 23                     | 39.0*                               | + 4.8                      | 69*      | 12    | 10*     | 19                        | 37*                   | 2.20*  | -                          | 1.42                  | 1.45*                   | 7*                            | 11                    | 7                           | 13 w.                 |       |
| Hanover.              | Grafton.      | 603              | 75                     | 38.8                                | + 5.2                      | 69       | 12    | 13      | 19                        | 35                    | 2.05   | -                          | 0.98                  | 0.70                    | 10                            | 2                     | 6                           | 8 nw.                 |       |
| Keene.                | Cheshire.     | 508              | 24                     | 40.6                                | + 3.9                      | 68       | 12    | 13      | 10                        | 36                    | 1.60   | -                          | 2.32                  | 0.55                    | 2.5                           | 10                    | 9                           | 10 nw.                |       |
| Nashua.               | Hillsboro.    | 125              | 24                     | 41.3                                | + 3.1                      | 73       | 12    | 18      | 10                        | 34                    | 2.29   | -                          | 1.69                  | 1.40                    | 30                            | 10                    | 9                           | 14 w.                 |       |
| Newton.               | Rockingham.   | 21               | 21                     | 41.0                                | + 3.2                      | 75       | 12    | 15      | 10                        | 34                    | 3.12   | -                          | 1.05                  | 1.90                    | 20                            | 6                     | 5                           | 7 sw.                 |       |
| Plymouth.             | Grafton.      | 500              | 21                     | 37.8                                | + 5.1                      | 68       | 12    | 15      | 10                        | 35                    | 2.49   | -                          | 1.43                  | 1.49                    | 3.0                           | 8                     | 12                          | 2                     | 16 w. |
| West Ossipee.         | Carroll.      | 1                |                        |                                     |                            |          |       |         |                           |                       |        |                            |                       |                         |                               |                       |                             |                       |       |
| <b>Vermont.</b>       |               |                  |                        |                                     |                            |          |       |         |                           |                       |        |                            |                       |                         |                               |                       |                             |                       |       |
| Bloomfield.           | Essex.        | 2                | 36.5                   | -                                   |                            | 66       | 12    | 9       | 30                        | 37                    | 1.79   | -                          | 0.58                  | 3.5                     | 14                            | 13                    | 9                           | 9 s.                  |       |
| Cavendish.            | Windsor.      | 910              | 6                      | 35.5                                | -                          | 75       | 12    | 13      | 30                        | 35                    | 2.07   | -                          | 0.34                  | 5.5                     | 6                             | 13                    | 3                           | 13                    |       |
| Chelsea.              | Orange.       | 1,840            | 14                     |                                     |                            |          |       |         |                           |                       |        |                            |                       |                         |                               |                       |                             |                       |       |
| Jacksonville.         | Windham.      | 1,000            | 24                     | 39.8                                | + 5.9                      | 69       | 11†   | 13      | 29                        | 52                    | 2.39   | - 2.39                     | 1.33                  | 7.0                     | 6                             | 14                    | 12                          | 4 nw.                 |       |
| Manchester.           | Bennington.   | 930              | 10                     | 39.2                                | -                          | 65       | 1†    | 18      | 19†                       | 29                    | 1.41   | -                          | 0.35                  | 3.0                     | 4                             | 8                     | 10                          | 13 sw.                |       |
| St. Johnsbury.        | Caledonia.    | 711              | 16                     | 37.8                                | + 4.5                      | 62       | 12†   | 13      | 30                        | 33                    | 1.97   | -                          | 1.99                  | 0.80                    | 4.5                           | 11                    | 7                           | 16 w.                 |       |
| Woodstock.            | Windsor.      | 700              | 17                     | 37.7                                | + 4.0                      | 67       | 12    | 14      | 29                        | 36                    | 2.15   | -                          | 1.36                  | 1.51                    | 6.0                           | 6                     | 9                           | 5 16                  |       |
| <b>Massachusetts.</b> |               |                  |                        |                                     |                            |          |       |         |                           |                       |        |                            |                       |                         |                               |                       |                             |                       |       |
| Amherst.              | Hampshire.    | 222              | 20                     | 42.0                                | + 3.7                      | 72       | 12    | 18      | 10                        | 39                    | 1.06   | - 2.79                     | 0.44                  | 2.5                     | 8                             | 11                    | 9                           | 10 sw.                |       |
| Blue Hill.            | Norfolk.      | 640              | 35                     | 43.2                                | + 3.5                      | 74       | 12    | 20      | 19                        | 38                    | 2.82   | - 0.80                     | 1.40                  | 3.1                     | 9                             | 7                     | 9                           | 14 sw.                |       |
| Boston.               | Suffolk.      | 125              | 39                     | 46.4                                | + 5.2                      | 76       | 12    | 27      | 30                        | 31                    | 4.11   | + 0.01                     | 2.83                  | T.                      | 9                             | 6                     | 8                           | 16 sw.                |       |
| Chestnut Hill.        | Suffolk.      | 124              | 29                     | 45.3                                | + 4.0                      | 74       | 12    | 22      | 19                        | 30                    | 4.89   | + 0.31                     | 3.05                  | T.                      | 11                            | 14                    | 4 13                        |                       |       |
| Clinton.              | Worcester.    | 370              | 13                     | 42.3                                | -                          | 75       | 12    | 17      | 30                        | 31                    | 2.41   | -                          | 1.52                  | 3.5                     | 11                            | 11                    | 5                           | 14                    |       |
| Middlesex.            | Middlesex.    | 139              | 19                     | 41.4                                | + 3.1                      | 76       | 12    | 16      | 10                        | 39                    | 3.06   | -                          | 0.88                  | 1.29                    | 2.5                           | 10                    | 9                           | 7 14 n.               |       |
| Fall River.           | Bristol.      | 200              | 43                     | 45.4                                | + 2.5                      | 72       | 12    | 25      | 30                        | 30                    | 3.47   | -                          | 1.29                  | 1.23                    | 8                             | 9                     | 12                          | 9 nw.                 |       |
| Fitchburg.            | Worcester.    | 550              | 26                     | 43.0                                | + 4.6                      | 74       | 12    | 20      | 10†                       | 30                    | 1.82   | -                          | 2.57                  | 0.72                    | 3.5                           | 7                     | 14                          | 12 w.                 |       |
| Framingham.           | Middlesex.    | 180              | 29                     | 44.2                                | + 3.5                      | 75       | 12    | 18      | 19                        | 35                    | 3.24   | -                          | 1.01                  | 2.0                     | 9                             | 7                     | 12                          |                       |       |
| Hyannis.              | Barnstable.   | 31               | 18                     | 45.4                                | + 0.5                      | 70       | 12    | 27      | 19                        | 35                    | 6.76   | -                          | 1.73                  | 3.51                    | 10                            | 13                    | 12                          | 5 sw.                 |       |
| Lawrence.             | Essex.        | 51               | 25                     | 42.9                                | + 3.0                      | 76       | 12    | 20      | 10†                       | 36                    | 3.46   | -                          | 0.74                  | 1.99                    | 3.0                           | 10                    | 10                          | 12 sw.                |       |
| Lowell.               | Middlesex.    | 100              | 24                     | 44.0                                | + 4.5                      | 75       | 12    | 19      | 10                        | 34                    | 2.65   | -                          | 1.36                  | 1.77                    | 8                             | 10                    | 15                          | sw.                   |       |
| Middleboro.           | Plymouth.     | 53               | 23                     | 43.2                                | + 2.9                      | 75       | 12    | 17      | 10                        | 43                    | 3.33   | -                          | 1.26                  | 1.73                    | 10                            | 5                     | 10                          |                       |       |
| Monson.               | Hampden.      | 430              | 25                     |                                     |                            |          |       |         |                           |                       |        |                            |                       |                         |                               |                       |                             |                       |       |
| Nantucket.            | Nantucket.    | 15               | 23                     | 47.2                                | + 2.0                      | 80       | 12    | 31      | 19                        | 17                    | 6.39   | + 3.11                     | 2.88                  | T.                      | 9                             | 5                     | 9                           | 16 ne.                |       |
| New Bedford.          | Bristol.      | 88               | 47                     | 47.4                                | -                          | 70       | 12    | 24      | 30                        | 32                    | 8.08   | -                          | 0.79*                 | T.                      | 6                             | 11                    | 11                          | 12 sw.                |       |
| Norfolk.              | Norfolk.      | 244              | 6                      | 43.9*                               | -                          | 76       | 12    | 27      | 30                        | 38                    | 2.07   | -                          | 0.79*                 | T.                      | 6                             | 11                    | 5 b.                        |                       |       |
| Northampton.          | Hampshire.    | 205              | 1                      | 44.4                                | -                          | 72       | 3     | 21      | 7                         | 35                    | 2.32   | -                          | 1.78                  | 3.0                     | 6                             | 11                    | 7 13 nw.                    |                       |       |
| Plymouth.             | Plymouth.     | 24               | 45.2                   | -                                   |                            | 67       | 13    | 21      | 19                        | 33                    | 6.80   | -                          | 4.36                  | 8                       | 9                             | 10                    | 11 n.                       |                       |       |
| Provincetown.         | Barnstable.   | 40               | 22                     | 46.4                                | + 2.5                      | 65       | 12    | 27      | 19                        | 32                    | 5.51   | + 1.91                     | 2.71                  | 0.0                     | 7                             | 16                    | 14 sw.                      |                       |       |
| Rockport.             | Essex.        | 25               | 7                      | 45.1                                | -                          | 72       | 12    | 22      | 19                        | 35                    | 4.41   | -                          | 2.40                  | 0.0                     | 9                             | 9                     | 8 13 nw.                    |                       |       |
| Rutland.              | Worcester.    | 1,160            | 7                      | 40.6                                | -                          | 71       | 12    | 16      | 30                        | 33                    | 2.16   | -                          | 0.96                  | 2.6                     | 8                             | 12                    | 8 10 sw.                    |                       |       |
| South Egremont.       | Berkshire.    | 764              | 7                      | 38.8                                | -                          | 66       | 12    | 14      | 10†                       | 36                    | 3.39   | -                          | 1.38                  | 9.5                     | 10                            |                       |                             |                       |       |
| Turner Falls.         | Franklin.     | 200              | 18                     | 42.2                                | + 5.0                      | 64       | 12    | 20      | 10                        | 38                    | 2.89   | -                          | 0.17                  | 1.52                    | 2.2                           | 6                     | 6                           |                       |       |
| Westboro.             | Worcester.    | 298              | 35                     | 44.8                                | + 5.0                      | 74       | 12    | 19      | 30                        | 30                    | 2.91   | -                          | 1.33                  | 1.00                    | 3.0                           | 7                     |                             |                       |       |
| Williamstown.         | Berkshire.    | 711              | 23                     | 41.0                                | + 3.4                      | 67       | 12    | 19      | 30                        | 31                    | 1.49   | -                          | 3.04                  | 0.49                    | 5.5                           | 9                     | 12                          | w.                    |       |
| Worcester.            | Worcester.    | 518              | 17                     | 43.4                                | + 2.8                      | 73       | 12    | 21      | 19                        | 28                    | 4.49   | -                          | 3.89                  | 4.0                     | 3.2                           | 9                     | 11                          | 8 11 sw.              |       |
| <b>Rhode Island.</b>  |               |                  |                        |                                     |                            |          |       |         |                           |                       |        |                            |                       |                         |                               |                       |                             |                       |       |
| Newport.              | Newport.      | 26               | 29                     | 47.0                                | + 1.7                      | 64       | 12    | 29      | 30                        | 18                    | 3.15   | - 0.73                     | 1.04                  | T.                      | 10                            | 9                     | 7                           | 14 sw.                |       |
| Bristol.              | Bristol.      | 53               | 23                     | 45.6                                | + 1.8                      | 57       | 12    | 26      | 30                        | 30                    | 3.46   | - 0.51                     | 1.60                  | 0.0                     | 8                             | 13                    | 10                          | 7 sw.                 |       |
| Kingston.             | Washington.   | 250              | 20                     | 43.8                                | + 2.7                      | 76       | 12    | 20      | 19                        | 34                    | 3.07   | -                          | 1.11                  | 0.82                    | T.                            | 8                     | 9                           | 14 7 w.               |       |
| Narragansett Pier.    | Newport.      | 22               | 27                     | 41.4                                | - 1.7                      | 76       | 12    | 16      | 10                        | 40                    | 4.36   | -                          | 0.00                  | 1.35                    | T.                            | 10                    | 13                          | 6 11 sw.              |       |
| Providence.           | Providence.   | 182              | 5                      | 45.2                                | -                          | 75       | 12    | 24      | 19                        | 29                    | 2.95   | -                          | 1.66                  | T.                      | 8                             | 8                     | 11                          | 11 n.                 |       |
| Connecticut.          |               |                  |                        |                                     |                            |          |       |         |                           |                       |        |                            |                       |                         |                               |                       |                             |                       |       |
| Bridgeport.           | Fairfield.    | 20               | 18                     | 45.7                                | -                          | 77       | 12    | 26      | 6†                        | 37</                  |        |                            |                       |                         |                               |                       |                             |                       |       |

TABLE 1.—*Climatological data for November, 1909. District No. 1—Continued.*

| Stations.               | Counties.    | Elevation, feet. | Temperature, in degrees Fahrenheit. |       |                            |          |       |                 | Precipitation, in inches. |                       |        |                            |                                   |                         | Sky.                                    | Prevailing wind direction.    | Observers.             |                     |                       |                 |
|-------------------------|--------------|------------------|-------------------------------------|-------|----------------------------|----------|-------|-----------------|---------------------------|-----------------------|--------|----------------------------|-----------------------------------|-------------------------|---|-------------------------------|------------------------|---------------------|-----------------------|-----------------|
|                         |              |                  | Length of record, yrs.              | Mean. | Departure from the normal. | Highest. | Date. | Lowest.         | Date.                     | Greatest daily range. | Total. | Departure from the normal. | Greatest daily range in 24 hours. | Total snowfall unmeted. | Number of rainy days, .01 inch or more. | Number of partly cloudy days. | Number of cloudy days. |                     |                       |                 |
| <b>New York—Cont'd.</b> |              |                  |                                     |       |                            |          |       |                 |                           |                       |        |                            |                                   |                         |   |                               |                        |                     |                       |                 |
| Bedford.                | Westchester. | 450              | 11                                  | 46.8  | + 5.7                      | 75       | 12    | 24              | 23                        | 38                    | 2.38   | - 1.28                     | 0.80                              | 1.5                     | 8                                       | 19                            | 6                      | 5                   | Dr. L. Rosenberg.     |                 |
| Binghamton.             | Broome.      | 875              | 18                                  | 43.0  | + 5.4                      | 76       | 1     | 19              | 25                        | 40                    | 0.58   | - 1.69                     | 0.26                              | 3.2                     | 9                                       | 11                            | 3                      | 16                  | U. S. Weather Bureau. |                 |
| Bouckville.             | Madison.     | 1,350            | 12                                  | 39.6  | + 5.7                      | 69       | 1     | 15              | 25                        | 34                    | 1.82   | - 1.13                     | 0.50                              | 7.0                     | 14                                      | 7                             | 4                      | 19                  | L. W. Griswold.       |                 |
| Boys Corners.           | Putnam.      | 580              | 27                                  | 17    | 42.3                       | + 2.0    | 72    | 12              | 20                        | 25                    | 33     | 2.84                       | - 1.21                            | 1.65                    | 2.0                                     | 8                             | 12                     | 1                   | 17                    | Thomas Manning. |
| Carmel.                 | Putnam.      | 500              | 17                                  | 42.3  | + 2.0                      | 72       | 12    | 22              | 27                        | 31                    | 1.23   | - 0.67                     | 0.60                              | 3.0                     | 7                                       | 12                            | 9                      | 9                   | Morton R. Tank.       |                 |
| Chatham.                | Columbia.    | 470              | 8                                   | 42.0  | .....                      | 71       | 12    | 22              | 27                        | 31                    | 1.23   | - 0.67                     | 0.60                              | 3.0                     | 15                                      | 9                             | 5                      | 16                  | G. Pomeroy Keesee.    |                 |
| Cooperstown.            | Otsego.      | 1,250            | 55                                  | 39.8  | + 4.8                      | 63       | 1     | 17              | 30                        | 31                    | 1.90   | - 1.14                     | 0.86                              | 3.0                     | 10                                      | 9                             | 6                      | 15                  | A. M. Hollister.      |                 |
| Corinth.                | Saratoga.    | 542              | 7                                   | 47    | 39.9                       | + 3.7    | 73    | 1†              | 15                        | 24                    | 35     | 1.54                       | - 1.80                            | 0.40                    | 2.0                                     | 14                            | 12                     | 7                   | 11                    | F. G. Baker.    |
| Cortland.               | Cortland.    | 1,129            | 47                                  | 42.3  | .....                      | 69       | 12    | 25              | 19                        | 29                    | 2.70   | + 0.01                     | 1.20                              | T.                      | 8                                       | 11                            | 16                     | 3                   | Wm. A. Fleet.         |                 |
| Cutchogue.              | Suffolk.     | 32               | 32                                  | 46.2  | + 3.1                      | 69       | 1     | 14              | 27                        | 34                    | 1.62   | .....                      | 0.30                              | 5.4                     | 15                                      | 9                             | 5                      | 16                  | B. D. Crandall.       |                 |
| De Ruyter.              | Madison.     | 1,300            | 6                                   | 41.4  | .....                      | 73       | 1     | 14              | 27                        | 34                    | 1.62   | .....                      | 0.30                              | 5.4                     | 15                                      | 9                             | 5                      | H. Taber.           |                       |                 |
| Easton.                 | Washington.  | 19               | 27                                  | 45.9  | + 6.4                      | 80       | 1     | 21              | 24                        | 49                    | 0.84   | - 1.14                     | 0.21                              | 2.1                     | 7                                       | 5                             | 15                     | 10                  | Gerty Bros.           |                 |
| Elmira.                 | Chemung.     | 863              | 280                                 | 42.3  | .....                      | 69       | 13    | 20              | 28                        | 32                    | 1.98   | .....                      | 0.70                              | 3.2                     | 11                                      | 14                            | 8                      | 8                   | C. E. Wing.           |                 |
| Fort Hunter.            | Montgomery.  | 316              | 5                                   | 42.3  | .....                      | 69       | 13    | 20              | 28                        | 32                    | 1.98   | .....                      | 0.70                              | 3.2                     | 10                                      | 9                             | 5                      | 17                  | Abram Devendorf.      |                 |
| Fort Plain.             | Warren.      | 340              | 15                                  | 40.5  | + 4.6                      | 69       | 12    | 16              | 18                        | 37                    | 1.75   | - 1.42                     | 0.85                              | 3.0                     | 10                                      | 11                            | 10                     | 10                  | Prof. C. L. Williams. |                 |
| Glens Falls.            | Fulton.      | 850              | 17                                  | 38.5  | + 3.8                      | 68       | 12    | 14              | 30                        | 38                    | 2.65   | - 0.64                     | 1.22                              | 7.5                     | 11                                      | 10                            | 10                     | 10                  | W. L. McLean.         |                 |
| Gloversville.           | Saratoga.    | 314              | 11                                  | 39.5  | + 3.9                      | 67       | 12    | 19              | 27                        | 30                    | 2.40   | - 0.06                     | 1.60                              | 6.0                     | 6                                       | 11                            | 8                      | 11                  | S. E. Darrow.         |                 |
| Greenfield Center.      | Washington.  | 426              | 12                                  | 40.9  | + 5.3                      | 69       | 1†    | 20              | 10†                       | 37                    | 1.45   | - 1.11                     | 0.55                              | 3.5                     | 9                                       | 10                            | 10                     | 10                  | I. V. H. Gill.        |                 |
| Greenwich.              | Delaware.    | 2,260            | 9                                   | 39.8  | .....                      | 73       | 1     | 15              | 7                         | 46                    | 1.44   | .....                      | 0.71                              | 3.5                     | 8                                       | 14                            | 7                      | 9                   | Sylvanus Kelly.       |                 |
| Griffin Corners.        | Steuben.     | 9                | .....                               | ..... | .....                      | .....    | ..... | .....           | .....                     | 1.57                  | - 0.85 | 0.53                       | 1.0                               | 8                       | .....                                   | .....                         | .....                  | .....               | Daniel B. Van Eaten.  |                 |
| Hancock.                | Rensselaer.  | 410              | .....                               | ..... | .....                      | .....    | ..... | .....           | .....                     | .....                 | .....  | .....                      | .....                             | .....                   | .....                                   | .....                         | .....                  | .....               | W. G. Collins.        |                 |
| Haskinville.            | Hamilton.    | 1,705            | 10                                  | 35.4  | + 2.8                      | 65       | 1†    | 10              | 7†                        | 39                    | 2.60   | - 0.16                     | 1.00                              | 7.0                     | 9                                       | 11                            | 3                      | 16                  | Sanford L. Cluett.    |                 |
| Hoosick Falls.          | Sullivan.    | 1,240            | 6                                   | 41.3  | .....                      | 78       | 1     | 16              | 19                        | 47                    | 1.66   | .....                      | 0.94                              | 1.0                     | 9                                       | 13                            | 10                     | 7                   | Lester Severie.       |                 |
| Indian Lake.            | Hamilton.    | 340              | .....                               | 40.7  | .....                      | 65       | 15    | 16              | 30                        | 38                    | 2.10   | .....                      | 0.60                              | 5                       | .....                                   | .....                         | .....                  | Chas. Wilbert, Jr.  |                       |                 |
| Lake Pleasant.          | Sullivan.    | 2,300            | 23                                  | 39.6  | + 4.6                      | 72       | 1     | 15              | 19                        | 30                    | 1.47   | - 1.85                     | 0.44                              | 2.8                     | 11                                      | 17                            | 5                      | 8                   | Willet Lawrence.      |                 |
| Liberty.                | Herkimer.    | 924              | 11                                  | 40.0  | + 5.1                      | 68       | 12    | 18              | 30                        | 35                    | 2.43   | - 0.32                     | 1.50                              | 9.0                     | 6                                       | 13                            | 9                      | 8                   | Dr. H. M. King.       |                 |
| Little Falls.           | Ulster.      | 1,245            | 13                                  | 43.9  | + 5.3                      | 70       | 12†   | 19              | 30                        | 37                    | 1.52   | - 1.24                     | 0.52                              | 3.2                     | 8                                       | 15                            | 4                      | 11                  | O. J. Demster.        |                 |
| Mohonk Lake.            | Hamilton.    | 1,697            | 1                                   | 37.3  | .....                      | 68       | 1     | 12              | 19                        | 36                    | 3.41   | - 0.70                     | 0.60                              | 6.0                     | 13                                      | 14                            | 3                      | 13                  | A. K. Smiley.         |                 |
| Morehouseville.         | Westchester. | 200              | 12                                  | 44.6  | + 3.8                      | 76       | 12    | 21              | 28                        | 40                    | 1.40   | - 1.57                     | 0.55                              | 3.0                     | 4                                       | 10                            | 11                     | 9                   | Theodore C. Remond.   |                 |
| Mount Hope.             | Tioga.       | 825              | 10                                  | 38.5  | .....                      | 69       | 1     | 14              | 20                        | 31                    | 1.40   | - 1.36                     | 0.30                              | 5.5                     | 6                                       | 11                            | 2                      | 16                  | Wm. A. Cornelius.     |                 |
| New Berlin.             | Chenango.    | 2                | .....                               | 38.4  | + 4.3                      | 72       | 1     | 8               | 30                        | 40                    | 1.89   | - 0.63                     | 0.94                              | 6.1                     | 8                                       | 12                            | 9                      | 18                  | M. D. Clinton.        |                 |
| New Lisbon.             | Otsego.      | 1,234            | 19                                  | 38.4  | + 4.3                      | 72       | 1     | 8               | 30                        | 40                    | 1.89   | - 0.63                     | 0.94                              | 8.0                     | 12                                      | 9                             | 11                     | Roger Greene.       |                       |                 |
| New York City.          | New York.    | 314              | 8                                   | 47.7  | + 3.7                      | 74       | 12    | 30              | 25                        | 36                    | 1.58   | - 1.86                     | 1.00                              | 1.0                     | 6                                       | 11                            | 8                      | 11                  | G. A. Yates.          |                 |
| North Creek.            | Warren.      | 1,002            | 1                                   | 38.4  | .....                      | 70       | 1     | 14              | 10                        | 31                    | 1.57   | .....                      | 1.57                              | 4.0                     | 7                                       | 10                            | 12                     | 8                   | U. S. Weather Bureau. |                 |
| Northville.             | Fulton.      | 742              | 7                                   | 41.2  | .....                      | 72       | 16    | 18 <sup>b</sup> | 30                        | 40 <sup>b</sup>       | 1.89   | - 0.72                     | 6.0                               | 8                       | 11                                      | 8                             | 11                     | W. G. Kenwell.      |                       |                 |
| Norwich.                | Chenango.    | 1,015            | 3                                   | 41.2  | .....                      | 72       | 16    | 18 <sup>b</sup> | 30                        | 40 <sup>b</sup>       | 1.89   | - 0.97                     | 0.84                              | 6.0                     | 10                                      | 4                             | 15                     | P. C. Pickard.      |                       |                 |
| Oneonta.                | Otsego.      | 1,112            | 15                                  | 41.6  | + 3.4                      | 74       | 1     | 15              | 30                        | 37                    | 1.69   | - 1.05                     | 0.73                              | 8.5                     | 9                                       | 10                            | 8                      | 12                  | H. S. Hopkins.        |                 |
| Oxford.                 | Chenango.    | 916              | 44                                  | 41.1  | + 5.4                      | 70       | 1     | 18              | 30                        | 35                    | 1.73   | - 1.05                     | 0.73                              | 9.0                     | 10                                      | 8                             | 12                     | H. W. Lee.          |                       |                 |
| Port Jervis.            | Orange.      | 470              | 25                                  | 43.7  | + 5.2                      | 74       | 1     | 19              | 10                        | 36                    | 2.13   | - 0.84                     | 1.23                              | 5.0                     | 10                                      | 11                            | 8                      | 11                  | John P. Davis.        |                 |
| Salisbury.              | Herkimer.    | 1,526            | 12                                  | 39.3  | + 4.8                      | 70       | 1†    | 15              | 24                        | 34                    | 2.42   | - 0.90                     | 0.81                              | 4.0                     | 9                                       | 13                            | 7                      | 8                   | Prof. John M. Dolph.  |                 |
| Salisbury Mills.        | Orange.      | 314              | 10                                  | 44.4  | .....                      | 75       | 12    | 18              | 29                        | 41                    | 2.55   | + 0.14                     | 2.28                              | 8.0                     | 4                                       | 19                            | 5                      | 6                   | Joseph Ryan.          |                 |
| Scarsdale.              | Westchester. | 200              | 5                                   | 45.8  | .....                      | 76       | 12    | 24              | 19                        | 32                    | 0.69   | - 0.25                     | 0.25                              | 1.5                     | 5                                       | 11                            | 4                      | 11                  | H. P. Ramsdell.       |                 |
| Staunton.               | Suffolk.     | 40               | 24                                  | 46.7  | + 2.6                      | 68       | 12    | 30              | 18†                       | 23                    | 2.13   | - 1.73                     | 0.74                              | T.                      | 9                                       | 15                            | 8                      | 7                   | C. H. Wilmarth.       |                 |
| Sherburne.              | Chenango.    | 2                | .....                               | ..... | .....                      | .....    | ..... | .....           | .....                     | 1.68                  | .....  | 0.80                       | 14.0                              | 4                       | 10                                      | 1                             | 1                      | Selah B. Strong.    |                       |                 |
| Southampton.            | Suffolk.     | 36               | 8                                   | 46.4  | .....                      | 67       | 12    | 25              | 19                        | 23                    | 2.54   | .....                      | 0.80                              | T.                      | 10                                      | 10                            | 13                     | 7                   | E. B. Collins.        |                 |
| Southeast Reservoir.    | Putnam.      | 310              | 14                                  | 41.8  | .....                      | 70       | 12    | 14              | 30                        | 37                    | 0.89   | .....                      | 0.45                              | 5.0                     | 4                                       | 11                            | 8                      | 11                  | W. L. Jagger.         |                 |
| Spier Falls.            | Saratoga.    | 400              | 8                                   | 39.0  | .....                      | 70       | 12    | 14              | 30                        | 37                    | 0.89   | .....                      | 0.45                              | 5.0                     | 4                                       | 11                            | 8                      | 11                  | Thomas Manning.       |                 |
| Trenton Falls.          | Oneida.      | 751              | 6                                   | 41.0  | .....                      | 70       | 1     | 14              | 10                        | 30                    | 1.17   | .....                      | 0.45                              | 5.0                     | 4                                       | 11                            | 8                      | 11                  | W. F. Anderson.       |                 |
| Tribe Hill.             | Montgomery.  | 268              | .....                               | ..... | .....                      | .....    | ..... | .....           | .....                     | .....                 | .....  | .....                      | .....                             | .....                   | .....                                   | .....                         | .....                  | C. W. Young.        |                       |                 |
| Utica.                  | Oneida.      | 537              | 4                                   | 45.8  | .....                      | 73       | 12    | 22              | 19                        | 35                    | 2.61   | - 0.87                     | T.                                | 9                       | 22                                      | 2                             | 6                      | R. S. Marshall.     |                       |                 |
| Wading River.           | Suffolk.     | 112              | 3                                   | 45.8  | + 3.4                      | 73       | 1     | 21              | 19                        | 37                    | 2.29   | - 0.98                     | 1.14                              | 9.0                     | 9                                       | 14                            | 12                     | 4                   | W. E. Young.          |                 |
| Wappingers Falls.       | Dutchess.    | 110              | 19                                  | 43.0  | + 3.3                      | 70       | 12    | 18              | 28                        | 30                    | 2.15   | - 0.49                     | 0.70                              | 6.0                     | 7                                       | 15                            | 5                      | 12                  | H. E. Fullerton.      |                 |
| Warwick.                | Orange.      | 538              | 9                                   | 41.0  | + 5.2                      | 74       | 1     | 19              | 10                        | 36                    | 2.13   | - 0.84                     | 1.23                              | 5.0                     | 10                                      | 11                            | 8                      | 11                  | H. C. Townsend.       |                 |
| Waverly.                | Tioga.       | 824              | 27                                  | 43.2  | + 4.9                      | 76       | 1     | 17              | 7                         | 43                    | 0.52   | - 1.84                     | 0.14                              | 1.0                     | 9                                       | 8                             | 15                     | 7                   | John W. Sly.          |                 |
| West Berne.             | Albany.      | 936              | 12                                  | 41.0  | + 5.2                      | 75       | 12    | 18              | 28                        | 43                    | 0.40   | - 2.14                     | 0.80                              | 4.0                     | 2                                       | 9                             | 17                     | 4                   | H. J. Shoemaker.      |                 |
| West Point.             | Orange.      | 167              | 60                                  | 44.4  | + 2.4                      | 70*      | 13    | 26              | 25                        | 37                    | 2.07   | - 1.88                     | 0.69                              | 8.0                     | 6                                       | 16                            | 4                      | 10                  | W. J. Haverty.        |                 |
| Windham.                | Greene.      | 1,520            | 10                                  | 39.4  | + 3.1                      | 72       | 1     | 11              | 30                        | 38                    | 2.37   | 0.00                       | 1.30                              | 6.0                     | 8                                       | 9                             | 20                     | 1                   | Maj. Chas. M. Gandy.  |                 |
| Altoona.                | Blair.       | 1,181            | 21                                  | 43.4  | + 3.8                      | 74       | 2     | 19              | 30                        | 47                    | 0.27   | - 1.92                     | 0.13                              | T.                      | 4                                       | 13                            | 7                      | 10                  | A. R. Mott.           |                 |
| Bellefonte.             | Center.      | 826              | 8                                   | 48.1  | .....                      | 77       | 1     | 25              | 30                        | 44                    | 0.50   | .....                      | 0.17                              | 7                       | 13                                      | 7                             | 10                     | Dr. C. B. Dudley.   |                       |                 |
| Center Hall.            | Center.      | 1,272            | 10                                  | 44.8  | + 4.7                      | 74       | 1     | 18              | 30                        | 41                    | 0.91   | - 1.42                     | 0.27                              | 2.0                     | 6                                       | 11                            | 6                      | 13                  | Fred Kurts.           |                 |
| Clearfield.             | Clearfield.  | 1,107            | 1                                   | 46.8  | .....                      | 80       | 1     | 20              | 29                        | 44                    | 0.98   | .....                      | 0.43                              | 1.0                     | 6                                       | 19                            | 2                      | 9                   | S. W. Smith.          |                 |
| Coatesville.            | Chester.     | 380              | 21                                  | 46.7  | + 4.0                      | 78       | 1     | 27              | 7†                        | 39                    | 1.97   | - 1.55                     | 0.53                              | 2.7                     | 8                                       | 15                            | 9                      | 12                  | Raymond C. Ogden.     |                 |
| Drifton.                | Luzerne.     | 1,633            | 11                                  | 40.3  | .....                      | 70       | 1     | 18              | 25                        | 30                    | 1.90   | .....                      | 0.50                              | 6.0                     | 9                                       | 14                            | 9                      | 7                   | W. T. Gordon.         |                 |
| Dushore.                | Sullivan.    | 1,590            | 11                                  | ..... | .....                      | .....    | ..... | .....           | .....                     | .....                 | .....  | .....                      | .....                             | .....                   | .....                                   | .....                         | .....                  | Eckley B. Coxe, Jr. |                       |                 |
| Easton.                 | Northampton. | 325              | 26                                  | 45.2  | + 5.8                      | 73       | 1     | 20              | 30                        | 41                    | 1.50   | - 1.36                     | 0.36                              | T.                      | 11                                      | 6                             | 14                     | 10                  | J. D. Benjamin.       |                 |
| Emporium.               | Cameron.     | 1,050            | 22                                  | 45.2  | + 5.8                      | 73       | 1     | 20              | 30                        | 41                    | 1.48   | 0.40                       | 0.40                              | 3.4                     | 8                                       | 13                            | 2                      | 13                  | J. W. Colliton.       |                 |
| Ephrata.                | Lancaster.   | 334              | 9                                   | 45.8  | .....                      | 78       | 1     | 23              | 30                        | 40                    | 1.48   | 0.40                       | 0.40                              | 3.4                     | 8                                       | 13                            | 2                      | 13                  | T. B. Lloyd.          |                 |
|                         |              |                  |                                     |       |                            |          |       |                 |                           |                       |        |                            |                                   |                         |   |                               |                        |                     |                       |                 |

## MONTHLY WEATHER REVIEW.

NOVEMBER, 1909

TABLE 1.—*Climatological data for November, 1909. District No. 1—Continued.*

| Stations.                   | Counties.     | Temperature, in degrees Fahrenheit. |                        |       |                            |          |       | Precipitation, in inches. |       |                       |        |                            |                            | Observers.            |       |                            |     |     |    |
|-----------------------------|---------------|-------------------------------------|------------------------|-------|----------------------------|----------|-------|---------------------------|-------|-----------------------|--------|----------------------------|----------------------------|-----------------------|-------|----------------------------|-----|-----|----|
|                             |               | Elevation, feet.                    | Length of record, yrs. | Mean. | Departure from the normal. | Highest. | Date. | Lowest.                   | Date. | Greatest daily range. | Total. | Departure from the normal. | Total snowfall unmeasured. | Number of rainy days. | Sky.  | Prevailing wind direction. |     |     |    |
| <b>Pennsylvania—Cont'd.</b> |               |                                     |                        |       |                            |          |       |                           |       |                       |        |                            |                            |                       |       |                            |     |     |    |
| Scranton.                   | Lackawanna.   | 805                                 | 9                      | 45.2  | .....                      | 77       | 1     | 23                        | 25    | 36                    | 1.33   | .....                      | 0.53                       | 5.9                   | 9     | 10                         | 15  | sw. |    |
| Sellinagrove.               | Snyder.       | 455                                 | 21                     | 45.6  | + 4.0                      | 75       | 1     | 20                        | 28    | 43                    | 1.21   | - 1.02                     | 0.80                       | 8.0                   | 8     | 3                          | 16  | nw. |    |
| State College.              | Center.       | 1,191                               | 21                     | 44.8  | + 5.3                      | 70       | 13    | 21                        | 18    | 36                    | 0.36   | - 2.25                     | 0.13                       | T.                    | ..... | .....                      | nw. |     |    |
| Towanda.                    | Bradford.     | 754                                 | 14                     | 44.1  | + 5.1                      | 77       | 1     | 23                        | 24    | 42                    | 0.86   | - 1.28                     | 0.30                       | 3.1                   | 10    | 11                         | 4   | sw. |    |
| Wellsville.                 | Tioga.        | 1,327                               | 32                     | 43.7  | + 6.0                      | 76       | 1     | 20                        | 7     | 47                    | 0.94   | - 2.11                     | 0.30                       | 2.0                   | 5     | 12                         | 11  | 7   |    |
| West Chester.               | Chester.      | 455                                 | 55                     | 47.4  | + 7.2                      | 74       | 1     | 28                        | 19    | 30                    | 2.50   | - 1.32                     | 0.90                       | 2.0                   | 13    | 16                         | 10  | s.  |    |
| Wilkes-Barre.               | Luzerne.      | 575                                 | 24                     | 45.0  | + 4.8                      | 77       | 1     | 25                        | 24    | 38                    | 0.88   | - 1.85                     | 0.42                       | 3.5                   | 4     | 5                          | 11  | 14  |    |
| Williamsport.               | Lycoming.     | 530                                 | 19                     | 46.0  | + 5.7                      | 73       | 1     | 26                        | 24    | 38                    | 0.59   | - 1.69                     | 0.19                       | 1.0                   | 6     | 14                         | 7   | nw. |    |
| <b>New Jersey.</b>          |               |                                     |                        |       |                            |          |       |                           |       |                       |        |                            |                            |                       |       |                            |     |     |    |
| Asbury Park.                | Monmouth.     | 22                                  | 21                     | 47.6  | + 3.0                      | 74       | 12    | 25                        | 19    | 28                    | 1.84   | - 1.31                     | 0.56                       | 2.0                   | 9     | 16                         | 4   | w.  |    |
| Atlantic City.              | Atlantic.     | 16                                  | 36                     | 48.2  | + 2.7                      | 73       | 12    | 29                        | 30    | 42                    | 1.93   | - 1.30                     | 1.04                       | 9                     | 13    | 6                          | 11  | nw. |    |
| Bayonne.                    | Hudson.       | 50                                  | 19                     | 46.2  | + 2.5                      | 75       | 12    | 28                        | 19    | 39                    | 1.45   | - 1.77                     | 0.55                       | 0.5                   | 9     | 13                         | 7   | nw. |    |
| Belvidere.                  | Warren.       | 289                                 | 19                     | 44.4  | + 3.7                      | 75       | 1     | 21                        | 28    | 39                    | 2.78   | - 0.48                     | 1.33                       | 2.0                   | 8     | 16                         | 6   | sw. |    |
| Bergen Point.               | Hudson.       | 37                                  | 13                     | 46.3  | + 3.2                      | 75       | 12    | 26                        | 19    | 28                    | 1.77   | - 1.38                     | 0.50                       | 1.3                   | 8     | 13                         | 9   | nw. |    |
| Boonton.                    | Morris.       | 413                                 | 19                     | 47.0  | + 4.1                      | 72       | 12    | 18                        | 10    | 40                    | 2.48   | - 1.36                     | 1.46                       | 1.5                   | 8     | 14                         | 8   | sw. |    |
| Bridgeton.                  | Cumberland.   | 30                                  | 34                     | 48.0  | + 2.1                      | 76       | 1     | 26                        | 19    | 40                    | 2.27   | - 0.69                     | 0.72                       | 1.0                   | 5     | 14                         | 6   | nw. |    |
| Burlington.                 | Burlington.   | 12                                  | 25                     | 47.6  | + 3.0                      | 72       | 12    | 30                        | 30    | 48                    | 3.55   | + 0.30                     | 1.90                       | 2.0                   | 8     | 12                         | 8   | nw. |    |
| Canton.                     | Salem.        | 24                                  | 15                     | 47.5  | + 1.8                      | 67       | 12    | 30                        | 30    | 48                    | 2.06   | - 1.16                     | 0.85                       | T.                    | 9     | 9                          | 13  | s.  |    |
| Cape May City.              | Cape May.     | 17                                  | 25                     | 49.2  | + 1.8                      | 67       | 12    | 30                        | 30    | 48                    | 2.06   | - 1.16                     | 0.85                       | T.                    | 9     | 9                          | 13  | 8   |    |
| Cape May C. H.              | Cape May.     | 19                                  | 22                     | 47.5  | + 3.2                      | 72       | 12    | 22                        | 10    | 35                    | 2.77   | - 0.89                     | 1.05                       | 5.8                   | 8     | 13                         | 9   | w.  |    |
| Charlotteburg.              | Passaic.      | 719                                 | 17                     | 44.2  | + 4.1                      | 72       | 12    | 18                        | 10    | 40                    | 1.50   | - 1.81                     | 2.5                        | 8                     | 14    | 8                          | sw. |     |    |
| Chatham.                    | Morris.       | 234                                 | 7                      | 47.6  | + 3.7                      | 80       | 1     | 26                        | 6     | 42                    | 2.45   | - 0.65                     | 0.58                       | 2.0                   | 7     | 14                         | 7   | nw. |    |
| Clayton.                    | Gloucester.   | 126                                 | 18                     | 47.6  | + 3.7                      | 80       | 1     | 26                        | 6     | 42                    | 1.89   | - 1.44                     | 0.88                       | 2.0                   | 10    | 14                         | 8   | sw. |    |
| College Farm.               | Middlesex.    | 100                                 | 14                     | 45.4  | + 2.0                      | 73       | 12    | 21                        | 19    | 33                    | 1.84   | - 1.44                     | 0.88                       | 1.05                  | 5.8   | 8                          | 13  | w.  |    |
| Culver's Lake.              | Sussex.       | 848                                 | 8                      | 47.5  | + 3.2                      | 72       | 12    | 22                        | 10    | 35                    | 2.77   | - 0.89                     | 1.05                       | 5.8                   | 8     | 13                         | 9   | sw. |    |
| Dover.                      | Morris.       | 575                                 | 25                     | 43.4  | + 3.2                      | 72       | 12    | 22                        | 10    | 35                    | 2.77   | - 0.89                     | 1.05                       | 5.8                   | 8     | 13                         | 9   | sw. |    |
| Elizabeth.                  | Union.        | 33                                  | 30                     | 47.0  | + 3.6                      | 70       | 21    | 20                        | 30    | 36                    | 1.73   | - 1.67                     | 1.0                        | 8                     | 12    | 10                         | w.  |     |    |
| Englewood.                  | Bergen.       | 135                                 | 23                     | 47.6  | + 3.2                      | 77       | 12    | 24                        | 19    | 38                    | 2.35   | - 0.97                     | 0.82                       | 1.5                   | 8     | 15                         | 6   | nw. |    |
| Flemington.                 | Hunterdon.    | 187                                 | 21                     | 45.7  | + 3.2                      | 77       | 12    | 24                        | 19    | 38                    | 2.35   | - 0.97                     | 0.82                       | 1.5                   | 8     | 15                         | 6   | sw. |    |
| Freehold.                   | Monmouth.     | 187                                 | 21                     | 47.6  | + 3.3                      | 75       | 11    | 25                        | 19    | 36                    | 2.20   | - 0.95                     | 0.95                       | 2.0                   | 9     | 15                         | 8   | w.  |    |
| Friesburg.                  | Salem.        | 100                                 | 18                     | 47.6  | + 3.3                      | 75       | 11    | 25                        | 19    | 36                    | 2.20   | - 0.95                     | 0.95                       | 2.0                   | 9     | 15                         | 8   | sw. |    |
| Haddonfield.                | Camden.       | 75                                  | 1                      | 47.2  | + 2.8                      | 79       | 1     | 26                        | 6     | 41                    | 2.80   | - 0.55                     | 1.61                       | 5.0                   | 7     | 14                         | 7   | sw. |    |
| Hammonston.                 | Atlantic.     | 80                                  | 12                     | 46.4  | + 2.8                      | 74       | 12    | 24                        | 19    | 34                    | 3.33   | - 0.33                     | 1.61                       | 2.0                   | 7     | 16                         | 5   | sw. |    |
| Hightstown.                 | Monmouth.     | 109                                 | 23                     | 46.2  | + 2.0                      | 78       | 1     | 23                        | 19    | 37                    | 2.69   | - 0.68                     | 1.4                        | 7                     | 15    | 6                          | sw. |     |    |
| Imlaytown.                  | Indian Mills. | 76                                  | 9                      | 47.3  | + 3.7                      | 80       | 1     | 21                        | 19    | 43                    | 3.45   | - 1.61                     | 1.0                        | 10                    | 13    | 10                         | 7   | nw. |    |
| Jersey City.                | Ocean.        | 54                                  | 8                      | 47.6  | + 3.2                      | 74       | 12    | 29                        | 19    | 47                    | 2.17   | - 0.63                     | 1.1                        | 7                     | 10    | 12                         | 8   | sw. |    |
| Lakewood.                   | Hudson.       | 95                                  | 23                     | 46.4  | + 3.6                      | 75       | 12    | 24                        | 19    | 39                    | 3.54   | + 0.27                     | 2.30                       | 2.0                   | 8     | 14                         | 9   | sw. |    |
| Lambertville.               | Hunterdon.    | 550                                 | 10                     | 42.6  | + 4.6                      | 77       | 12    | 17                        | 28    | 44                    | 2.05   | - 0.07                     | 3.0                        | 8                     | 15    | 5                          | sw. |     |    |
| Little Falls.               | Passaic.      | 175                                 | 7                      | 48.0  | .....                      | 73       | 12    | 24                        | 19    | 39                    | 2.44   | - 0.86                     | 1.5                        | 10                    | 10    | 10                         | nw. |     |    |
| Long Branch.                | Monmouth.     | 30                                  | 1                      | 48.0  | .....                      | 73       | 12    | 24                        | 19    | 39                    | 1.70   | - 0.67                     | 1.0                        | 7                     | 10    | 12                         | sw. |     |    |
| Mahwah.                     | Bergen.       | 312                                 | 7                      | 47.6  | + 3.6                      | 76       | 12    | 22                        | 19    | 33                    | 2.17   | - 0.94                     | 1.5                        | 8                     | 12    | 9                          | nw. |     |    |
| Moorestown.                 | Burlington.   | 71                                  | 47                     | 47.2  | + 4.4                      | 74       | 1     | 25                        | 19    | 32                    | 3.44   | + 0.01                     | 1.98                       | T.                    | 9     | 12                         | 9   | n.  |    |
| Newark.                     | Sussex.       | 200                                 | 40                     | 45.4  | + 4.2                      | 75       | 12    | 27                        | 19    | 38                    | 1.35   | - 2.18                     | 0.38                       | 3.4                   | 8     | 10                         | 10  | nw. |    |
| New Brunswick.              | Middlesex.    | 61                                  | 56                     | 45.6  | + 4.2                      | 72       | 12    | 21                        | 30    | 32                    | 2.50   | - 1.14                     | 2.0                        | 7                     | 14    | 7                          | w.  |     |    |
| Newton.                     | Sussex.       | 678                                 | 30                     | 44.0  | + 4.5                      | 76       | 12    | 21                        | 19    | 42                    | 2.58   | - 0.37                     | 0.74                       | 3.5                   | 9     | 17                         | 2   | nw. |    |
| Northfield.                 | Atlantic.     | 1                                   | 23                     | 46.4  | + 3.6                      | 75       | 12    | 24                        | 19    | 39                    | 2.07   | - 0.74                     | 1.20                       | 0.0                   | 8     | 13                         | 8   | nw. |    |
| Oceanside.                  | Monmouth.     | 16                                  | 23                     | 48.3  | + 3.3                      | 76       | 12    | 22                        | 19    | 33                    | 1.62   | - 1.85                     | 0.66                       | 3.0                   | 8     | 13                         | 8   | nw. |    |
| Paterson.                   | Passaic.      | 110                                 | 39                     | 46.0  | + 2.8                      | 76       | 12    | 26                        | 28    | 32                    | 2.14   | - 1.15                     | 0.79                       | 1.3                   | 9     | 8                          | 16  | 6   |    |
| Phillipsburg.               | Warren.       | 106                                 | 7                      | 45.6  | + 3.9                      | 74       | 12    | 25                        | 28    | 36                    | 3.03   | - 1.27                     | 1.10                       | 2.2                   | 9     | 16                         | 6   | nw. |    |
| Plainfield.                 | Union.        | 100                                 | 22                     | 45.8  | + 3.8                      | 76       | 12    | 22                        | 19    | 34                    | 2.48   | - 1.27                     | 0.75                       | 2.6                   | 10    | 10                         | 13  | 7   |    |
| Pleasantville.              | Atlantic.     | 26                                  | 11                     | 47.1  | + 3.1                      | 74       | 12    | 20                        | 19    | 35                    | 1.61   | - 1.46                     | 0.55                       | 1.0                   | 9     | 9                          | 12  | sw. |    |
| Pompton Plains.             | Morris.       | 195                                 | 7                      | 47.3  | + 3.4                      | 79       | 1     | 25                        | 19    | 41                    | 2.28   | - 1.04                     | 0.78                       | 2.5                   | 7     | 15                         | 7   | n.  |    |
| Port Norris.                | Cumberland.   | 8                                   | 1                      | 47.6  | + 3.0                      | 75       | 12    | 21                        | 10    | 41                    | 2.93   | - 1.28                     | 1.28                       | 3.0                   | 8     | 13                         | 8   | sw. |    |
| Rancocas.                   | Burlington.   | 68                                  | 46                     | 44.6* | + 3.0                      | 75       | 12    | 21                        | 10    | 41                    | 1.32   | - 0.52                     | 1.50                       | 2.0                   | 7     | 16                         | 5   | nw. |    |
| Rivervale.                  | Middlesex.    | 70                                  | 18                     | 44.6* | + 3.0                      | 75       | 12    | 21                        | 10    | 41                    | 2.58   | - 0.52                     | 1.50                       | 3.0                   | 7     | 16                         | 5   | sw. |    |
| Runyon.                     | Somerset.     | 18                                  | 3                      | 45.8  | + 3.4                      | 75       | 12    | 22                        | 19    | 34                    | 2.58   | - 0.52                     | 1.50                       | 2.0                   | 7     | 16                         | 5   | sw. |    |
| Somerville.                 | Essex.        | 76                                  | 30                     | 45.8  | + 3.4                      | 75       | 12    | 22                        | 19    | 34                    | 2.58   | - 0.52                     | 1.50                       | 2.0                   | 7     | 17                         | 6   | w.  |    |
| South Orange.               | Sussex.       | 200                                 | 40                     | 45.4  | + 3.0                      | 73       | 12    | 25                        | 19    | 37                    | 1.76   | - 1.05                     | 1.5                        | 2.0                   | 8     | 14                         | 8   | sw. |    |
| Sussex.                     | Mercer.       | 442                                 | 19                     | 44.0  | + 3.0                      | 75       | 12    | 21                        | 10    | 39                    | 1.97   | - 1.15                     | 4.0                        | 8                     | 14    | 8                          | sw. |     |    |
| Trenton.                    | Ocean.        | 60                                  | 40                     | 48.2  | + 2.8                      | 73       | 12    | 28                        | 30    | 43                    | 2.43   | + 0.54                     | 2.15                       | 2.0                   | 7     | 13                         | 8   | sw. |    |
| Tuckerton.                  | Cumberland.   | 23                                  | 18                     | 47.1  | + 3.1                      | 74       | 12    | 20                        | 19    | 35                    | 1.61   | - 1.46                     | 0.55                       | 1.0                   | 9     | 9                          | 12  | sw. |    |
| Vineland.                   | Cape May.     | 118                                 | 43                     | 47.3  | + 3.4                      | 79       | 1     | 25                        | 19    | 41                    | 2.28   | - 1.04                     | 0.78                       | 2.5                   | 7     | 15                         | 7   | nw. |    |
| Woodbine.                   | Cape May.     | 43                                  | 18                     | 47.1  | + 3.8                      | 75       | 1     | 23                        | 19    | 32                    | 2.86   | + 0.07                     | 0.90                       | 2.0                   | 8     | 13                         | 7   | 10  |    |
| <b>West Virginia.</b>       |               |                                     |                        |       |                            |          |       |                           |       |                       |        |                            |                            |                       |       |                            |     |     |    |
| Bayard.                     | Grant.        | 2,500                               | 6                      | 43.6* | .....                      | 71*      | 1     | 15*                       | 30    | 44                    | 1.38*  | .....                      | 0.38*                      | 1.0*                  | 7     | 15*                        | 4*  | w.  |    |
| Burlington.                 | Mineral.      | 875                                 | 13                     | 47.8  | + 5.6                      | 77       | 12†   | 15                        | 30    | 50                    | 0.32   | - 1.69                     | 0.17                       | T.                    | 2     | 14                         | 13  | w.  |    |
| Franklin.                   | Pendleton.    | 3                                   | 3                      | 48.8  | + 4.8                      | 75       | 1     | 22                        | 30    | 34                    | 0.35   | - 1.83                     | 0.10                       | T.                    | 5     | 14                         | 6   | w.  |    |
| Lost City.                  | Berkeley.     | 425                                 | 18                     | 47.4  | + 4.8                      | 75       | 1     | 26                        | 25†   | 43                    | 0.78   | - 1.53                     | 0.30                       | 0.0                   | 6     | 18                         | 8   | nw. |    |
| Martinsburg.                | Hardy.        | 900                                 | 13                     | 50.5  | + 7.8                      | 75       | 12    | 13                        | 30    | 50                    | 1.23   | - 1.59                     | 0.11                       | T.                    | 3     | 7                          | 21  | sw. |    |
| Moorefield.                 | Hampshire.    | 824                                 | 13                     | 46.8  | + 4.2                      | 75       | 22    | 17                        | 30    | 45                    | 0.56   | - 1.54                     | 0.15                       | T.                    | 6     | 15                         | 6   | w.  |    |
| Romney.                     | Pendleton.    | 1,230                               | 11                     | 49.4  | + 5.8                      | 78       | 1     | 17                        | 30    | 46                    | 0.84   | - 1.00                     | 0.50                       | T.                    | 4     | 10                         | 14  | 6   |    |
| Upper Tract.                | Queen Anne's. | Kent.                               | 80                     | 24    | 49.2                       | + 3.8    | 72    | 2                         | 29    | 30                    | 28     | 2.32                       | - 0.55                     | 0.78                  | 2.0   | 8                          | 17  | 8   | n. |
| Maryland.                   | Anne Arundel. | 45                                  | 31                     | 50.9  | + 4.2                      | 85       | 1     | 31                        | 30    | 40                    | 2.70   | - 0.48                     | 1.35                       | T.                    | 5     | 15                         | 5   | 10  |    |
| Bachman's Valley.           | Carroll.</    |                                     |                        |       |                            |          |       |                           |       |                       |        |                            |                            |                       |       |                            |     |     |    |

TABLE 1.—Climatological data for November, 1909. District No. 1—Continued.

| Stations.                    | Counties.                 | Elevation, feet. | Length of record, yrs. | Temperature, in degrees Fahrenheit. |                            |                 |                 |                 | Precipitation, in inches. |                       |        |                            |                       | Sky.                       | Prevailing wind direction.           | Observers.            |                               |                        |     |
|------------------------------|---------------------------|------------------|------------------------|-------------------------------------|----------------------------|-----------------|-----------------|-----------------|---------------------------|-----------------------|--------|----------------------------|-----------------------|----------------------------|--------------------------------------|-----------------------|-------------------------------|------------------------|-----|
|                              |                           |                  |                        | Mean.                               | Departure from the normal. | Highest.        | Date.           | Lowest.         | Date.                     | Greatest daily range. | Total. | Departure from the normal. | Greatest in 24 hours. | Total snowfall unmeasured. | Number rainy days, .01 inch or more. | Number of clear days. | Number of partly cloudy days. | Number of cloudy days. |     |
| <b>Maryland—Cont'd.</b>      |                           |                  |                        |                                     |                            |                 |                 |                 |                           |                       |        |                            |                       |                            |                                      |                       |                               |                        |     |
| Laurel.....                  | Prince George.....        | 150              | 15                     | 49.3                                | + 4.2                      | 78              | 2               | 23              | 28                        | 43                    | 0.98   | - 1.60                     | 0.73                  | 2.0                        | 3                                    | 13                    | 12                            | 5                      | ... |
| Monrovia.....                | Frederick.....            | 630              | 22                     | 50.6                                | + 7.1                      | 77              | 1               | 26              | 19 <sup>a</sup>           | 33                    | 1.19   | - 2.28                     | 0.60                  | T.                         | 7                                    | 17                    | 7                             | 6                      | s.  |
| Ocean City.....              | Worcester.....            | 10               |                        |                                     |                            |                 |                 |                 |                           |                       |        |                            |                       |                            |                                      |                       |                               |                        |     |
| Pocomoke City.....           | Worcester.....            | 37               | 16                     | 52.4                                | + 2.4                      | 74              | 2               | 30              | 19                        | 29                    | 1.15   | - 1.20                     | 1.02                  | T.                         | 3                                    | 19                    | 5                             | 6                      | n.  |
| Porto Bello.....             | St. Marys.....            | 38               | 4                      | 52.1 <sup>b</sup>                   |                            | 79 <sup>a</sup> | 1               | 26 <sup>b</sup> | 30                        | 35                    | 1.20   | - 1.20                     | 0.71                  | T.                         | 1                                    | 22                    | 4                             | 4                      | nw. |
| Princess Anne.....           | Somerset.....             | 17               | 16                     | 50.0                                | + 3.6                      | 76              | 1               | 23              | 19                        | 33                    | 1.69   | - 0.57                     | 0.71                  | T.                         | 5                                    | 9                     | 16                            | 5                      | sw. |
| Rockville.....               | Montgomery.....           | 421              | 2                      | 50.6                                |                            | 78              | 2               | 27              | 18                        | 37                    | 0.93   | - 0.60                     | 0.60                  | 1.0                        | 3                                    | 22                    | 5                             | 3                      | ... |
| Salisbury.....               | Wicomico.....             | 23               | 4                      |                                     |                            |                 |                 |                 |                           |                       |        |                            |                       |                            |                                      |                       |                               |                        |     |
| Sanatorium.....              | Frederick.....            | 1                |                        | 48.6                                |                            | 72              | 1               | 27              | 19                        | 29                    | 0.70   | - 0.23                     | 0.23                  | T.                         | 6                                    | 18                    | 0                             | 12                     | se. |
| Solomons.....                | Calvert.....              | 20               | 18                     | 51.7                                | + 3.1                      | 75              | 2               | 32              | 19 <sup>a</sup>           | 27                    | 1.07   | - 1.12                     | 0.45                  | 1.5                        | 5                                    | 9                     | 11                            | 10                     | nw. |
| Sudlersville.....            | Queen Anne's.....         | 65               | 10                     | 48.8                                | + 2.9                      | 75              | 1 <sup>a</sup>  | 27              | 23 <sup>a</sup>           | 38                    | 2.37   | + 0.32                     | 0.70                  | 3.0                        | 10                                   | 15                    | 8                             | 7                      | nw. |
| Takoma Park.....             | Montgomery.....           | 320              | 11                     | 49.8                                | + 5.1                      | 77              | 2               | 26              | 19                        | 36                    | 0.93   | - 1.16                     | 0.52                  | 1.0                        | 6                                    | 18                    | 6                             | 6                      | ... |
| Taneytown.....               | Carroll.....              | 450              | 10                     | 47.8 <sup>c</sup>                   | + 4.3                      | 77 <sup>a</sup> | 1               | 22              | 28                        | 44                    | 0.61   | - 2.31                     | 0.28                  | T.                         | 5                                    | 20                    | 2                             | 8                      | nw. |
| Towson.....                  | Baltimore.....            | 475              | 1                      | 49.6                                |                            | 75              | 2 <sup>a</sup>  | 28              | 19 <sup>a</sup>           | 33                    | 1.10   | - 0.52                     | 0.52                  | 2.7                        | 7                                    | 15                    | 4                             | 11                     | se. |
| Van Bibber.....              | Harford.....              | 100              | 12                     |                                     |                            |                 |                 |                 |                           |                       |        |                            |                       |                            |                                      |                       |                               |                        |     |
| Westernport.....             | Allegany.....             | 1,000            | 15                     | 48.4                                | + 6.4                      | 75              | 19 <sup>a</sup> | 20              | 30                        | 46                    | 0.21   | - 1.60                     | 0.08                  | T.                         | 4                                    |                       |                               |                        | nw. |
| Woodstock.....               | Baltimore.....            | 392              | 35                     | 48.4                                | + 5.6                      | 78              | 3               | 24              | 28                        | 39                    |        |                            |                       |                            |                                      |                       |                               |                        |     |
| <i>District of Columbia.</i> |                           |                  |                        |                                     |                            |                 |                 |                 |                           |                       |        |                            |                       |                            |                                      |                       |                               |                        |     |
| Washington.....              | District of Columbia..... | 112              | 39                     | 50.8                                | + 5.8                      | 77              | 2               | 29              | 28                        | 37                    | 0.80   | - 1.82                     | 0.53                  | 1.5                        | 6                                    | 17                    | 7                             | 6                      | s.  |
| <i>Delaware.</i>             |                           |                  |                        |                                     |                            |                 |                 |                 |                           |                       |        |                            |                       |                            |                                      |                       |                               |                        |     |
| New Castle.....              | New Castle.....           | 10               | 7                      | 49.3                                |                            | 74              | 2               | 29              | 28                        | 38                    | 1.67   | - 0.42                     | 0.42                  | 0.5                        | 6                                    | 18                    | 6                             | 6                      | nw. |
| Dover.....                   | Kent.....                 | 40               | 21                     | 49.2                                | + 5.9                      | 79              | 1               | 27              | 28 <sup>a</sup>           | 34                    | 2.81   | - 0.59                     | 1.99                  | 2.0                        | 5                                    | 15                    | 6                             | 9                      | w.  |
| Milford.....                 | Kent.....                 | 20               | 25                     | 50.1                                | + 4.6                      | 77              | 1               | 27              | 19                        | 41                    | 2.22   | - 0.92                     | 0.67                  | 3.0                        | 10                                   | 15                    | 7                             | 3                      | sw. |
| Millsboro.....               | Sussex.....               | 20               | 17                     | 49.9                                | + 3.4                      | 78              | 1               | 23              | 5                         | 39                    | 2.11   | - 0.60                     | 1.03                  | T.                         | 4                                    | 19                    | 3                             | 3                      | sw. |
| Seaford.....                 | Sussex.....               | 40               | 16                     | 49.4                                | + 3.2                      | 76              | 1               | 25              | 19                        | 33                    | 1.81   | - 0.83                     | 0.88                  | 0.5                        | 8                                    | 20                    | 1                             | 9                      | sw. |
| <i>Virginia.</i>             |                           |                  |                        |                                     |                            |                 |                 |                 |                           |                       |        |                            |                       |                            |                                      |                       |                               |                        |     |
| Culpeper.....                | Culpeper.....             | 450              |                        | 47.0                                |                            | 75              | 2               | 22              | 19                        | 39                    | 0.73   | - 0.56                     | T.                    | 4                          | 10                                   | 15                    | 5                             | s.                     |     |
| Dale Enterprise.....         | Rockingham.....           | 1,350            | 30                     | 48.1                                | + 4.3                      | 74              | 12              | 19              | 30                        | 45                    | 0.90   | - 1.35                     | 0.45                  | T.                         | 5                                    | 14                    | 9                             | 7                      | s.  |
| Doswell.....                 | Hanover.....              | 134              | 6                      | 52.9                                |                            | 80              | 1 <sup>a</sup>  | 19              | 19                        | 42                    | 0.81   | - 0.60                     | T.                    | 3                          | 10                                   | 9                     | 2                             | s.                     |     |
| Fredericksburg.....          | Spotsylvania.....         | 100              | 20                     | 52.2                                | + 5.7                      | 79              | 2               | 21              | 19                        | 41                    | 1.07   | - 1.35                     | 0.85                  | T.                         | 4                                    | 18                    | 8                             | 4                      | nw. |
| Lincoln.....                 | Loudon.....               | 500              | 3                      | 50.0                                |                            | 81              | 12              | 20              | 26                        | 51                    | 0.81   | - 0.46                     | T.                    | 3                          | 14                                   | 9                     | 7                             | nw.                    |     |
| Mt. Weather.....             | Loudon.....               | 1,726            | 5                      | 47.0                                |                            | 70              | 2               | 24              | 24                        | 31                    | 0.97   | - 0.35                     | 0.28                  | T.                         | 7                                    | 13                    | 11                            | 6                      | nw. |
| Nokevillage (near).....      | Fauquier.....             | 350              | 5                      | 51.3                                |                            | 79              | 1 <sup>a</sup>  | 25              | 19                        | 39                    | 0.67   | - 0.42                     | T.                    | 3                          | 20                                   | 4                     | 6                             | ...                    |     |
| Quantico.....                | Prince William.....       | 16               | 12                     | 51.2                                | + 6.6                      | 79              | 2               | 22              | 20                        | 46                    | 1.32   | - 1.13                     | T.                    | 3                          | 27                                   | 0                     | 3                             | nw.                    |     |
| Shenandoah.....              | Page.....                 | 927              | 8                      |                                     |                            |                 |                 |                 |                           |                       | 1.00   | - 0.59                     | T.                    | 3                          | 24                                   | 2                     | 4                             | sw.                    |     |
| Staunton.....                | Augusta.....              | 1,350            | 17                     | 50.0                                | + 5.2                      | 75              | 2               | 25              | 30                        | 40                    | 1.15   | - 1.09                     | 0.63                  | T.                         | 3                                    | 13                    | 22                            | 6                      | w.  |
| Stephens City.....           | Frederick.....            | 710              | 17                     | 49.6                                | + 5.8                      | 78              | 2               | 21              | 30                        | 40                    | 0.49   | - 1.56                     | 0.20                  | T.                         | 5                                    | 22                    | 6                             | 2                      | w.  |
| Warsaw.....                  | Richmond.....             | 180              | 17                     | 51.6                                | + 5.2                      | 78              | 1 <sup>a</sup>  | 23              | 19                        | 31                    | 1.58   | - 1.00                     | 0.95                  | T.                         | 6                                    | 15                    | 10                            | 5                      | n.  |
| Woodstock.....               | Shenandoah.....           | 927              | 13                     | 50.2                                | + 5.6                      | 78              | 12              | 19              | 30                        | 43                    | 0.44   | - 1.58                     | 0.30                  | T.                         | 3                                    | 13                    | 12                            | 5                      | w.  |

\* Precipitation included in that of the next measurement.

\*\* Temperature extremes are from observed readings of the dry-bulb; means are computed from observed readings.

† Also on other dates.

‡ Separate dates of fall not recorded.

§ Data are from standard instruments not supplied by the U. S. Weather Bureau.

|| Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.

¶ Estimated by observer.

||| Precipitation for the 24 hours ending on the morning when it is measured.

T. Precipitation is less than 0.01 inch rain or melted snow.

\*, †, ‡, etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.

Dr. T. M. Baldwin.  
J. H. Lawson.  
J. Alan Massey.  
R. M. Stevenson.  
Alpheus Hyatt.  
Jas. R. Stewart.  
Dr. Geo. E. Lewis.  
W. E. Downing.  
Dr. W. M. Garrison.  
Dr. W. H. Marsh.  
Jas. E. Higman.  
L. M. Moers.  
R. A. Nusbaum.  
C. W. Treadwell.  
H. A. Wroth.  
Prof O. H. Bruce.  
Rev. A. J. Donlon.

U. S. Weather Bureau.

H. Morton Price.  
Thos. F. Dunn.  
C. J. Holzmueller.  
Rev. L. W. Wells.  
E. B. Brown.  
Col. H. C. Burrows.  
Rev. L. J. Heatwole.  
R. F. & P. R. R.  
S. G. Howison.  
Dr. George Roberts.  
U. S. Weather Bureau.  
Andrew Low.  
R. F. & P. R. R.  
N. & W. Ry.  
Western State Hospital.  
B. T. Argenbright.  
C. H. Constable.  
Miss A. G. Miley.

TABLE 2.—*Daily precipitation for November, 1909. District No. 1, North Atlantic States.*

TABLE 2.—*Daily precipitation for November, 1909. District No. 1—Continued.*

## MONTHLY WEATHER REVIEW.

NOVEMBER, 1909

TABLE 2.—*Daily precipitation for November, 1909. District No. 1—Continued.*

TABLE 2.—*Daily precipitation for November, 1909. District No. 1—Continued.*

## MONTHLY WEATHER REVIEW.

NOVEMBER, 1909

TABLE 3.—Maximum and minimum temperatures at selected stations, November, 1909. District No. 1, North Atlantic States.

| Date. | Maine.    |       |             |       |        |       |           |       |                |       |                |       | Massachusetts. |       |         |       |             |       |            |       |                   |       |             |       | Connecticut. |       |      |  |
|-------|-----------|-------|-------------|-------|--------|-------|-----------|-------|----------------|-------|----------------|-------|----------------|-------|---------|-------|-------------|-------|------------|-------|-------------------|-------|-------------|-------|--------------|-------|------|--|
|       | Eastport. |       | Greenville. |       | Orono. |       | Portland. |       | Bumford Falls. |       | Concord, N. H. |       | Amherst.       |       | Boston. |       | Middleboro. |       | Nantucket. |       | Providence, R. I. |       | Green Hill. |       | Hartford.    |       |      |  |
|       | Max.      | Min.  | Max.        | Min.  | Max.   | Min.  | Max.      | Min.  | Max.           | Min.  | Max.           | Min.  | Max.           | Min.  | Max.    | Min.  | Max.        | Min.  | Max.       | Min.  | Max.              | Min.  | Max.        | Min.  | Max.         | Min.  |      |  |
| 1...  | 46        | 32    | 46          | 16    | 54     | 19    | 49        | 35    | 49             | 27    | .....          | 54    | 28             | 62    | 34      | 52    | 41          | 62    | 31         | 57    | 47                | 62    | 41          | 66    | 36           | 64    | 41   |  |
| 2...  | 55        | 45    | 48          | 38    | 60     | 38    | 54        | 47    | 44             | 34    | .....          | 58    | 41             | 62    | 38      | 71    | 50          | 70    | 36         | 61    | 50                | 70    | 49          | 64    | 47           | 64    | 49   |  |
| 3...  | 57        | 50    | 52          | 43    | 57     | 50    | 54        | 44    | 50             | 40    | .....          | 58    | 31             | 55    | 42      | 62    | 49          | 59    | 52         | 57    | 48                | 61    | 44          | 67    | 50           | 60    | 47   |  |
| 4...  | 51        | 44    | 49          | 31    | 55     | 40    | 53        | 38    | 48             | 33    | .....          | 51    | 38             | 45    | 31      | 47    | 33          | 50    | 30         | 47    | 47                | 57    | 40          | 54    | 42           | 57    | 42   |  |
| 5...  | 47        | 36    | 38          | 32    | 51     | 36    | 45        | 37    | 41             | 36    | .....          | 44    | 17             | 48    | 18      | 52    | 31          | 50    | 17         | 50    | 38                | 50    | 26          | 43    | 33           | 44    | 39   |  |
| 6...  | 38        | 33    | 36          | 29    | 42     | 31    | 43        | 33    | 40             | 34    | .....          | 47    | 34             | 54    | 29      | 54    | 34          | 54    | 28         | 50    | 41                | 53    | 33          | 44    | 30           | 53    | 32   |  |
| 7...  | 45        | 35    | 44          | 27    | 47     | 27    | 44        | 31    | 44             | 24    | .....          | 47    | 29             | 50    | 21      | 45    | 32          | 50    | 23         | 45    | 37                | 48    | 29          | 38    | 26           | 55    | 34   |  |
| 8...  | 47        | 35    | 39          | 26    | 47     | 24    | 47        | 33    | 44             | 23    | .....          | 46    | 27             | 51    | 30      | 56    | 36          | 55    | 22         | 54    | 37                | 58    | 34          | 48    | 29           | 55    | 34   |  |
| 9...  | 40        | 31    | 38          | 24    | 45     | 23    | 43        | 33    | 41             | 24    | .....          | 47    | 22             | 51    | 26      | 49    | 39          | 55    | 35         | 51    | 42                | 50    | 33          | 48    | 32           | 50    | 34   |  |
| 10... | 42        | 28    | 44          | 14    | 41     | 16    | 47        | 27    | 44             | 18    | .....          | 48    | 17             | 48    | 18      | 52    | 31          | 50    | 17         | 50    | 38                | 50    | 26          | 43    | 26           | 52    | 25   |  |
| 11... | 49        | 35    | 51          | 26    | 53     | 25    | 49        | 33    | 46             | 26    | .....          | 62    | 30             | 65    | 34      | 64    | 44          | 62    | 27         | 56    | 42                | 63    | 39          | 66    | 34           | 68    | 44   |  |
| 12... | 48        | 44    | 62          | 32    | 63     | 34    | 66        | 39    | 60             | 33    | .....          | 74    | 39             | 72    | 33      | 78    | 53          | 75    | 33         | 68    | 49                | 75    | 52          | 73    | 47           | 74    | 43   |  |
| 13... | 49        | 43    | 50          | 40    | 60     | 41    | 52        | 44    | 53             | 38    | .....          | 57    | 47             | 62    | 46      | 53    | 48          | 54    | 44         | 51    | 48                | 62    | 48          | 62    | 50           | 60    | 45   |  |
| 14... | 48        | 39    | 43          | 27    | 52     | 37    | 48        | 33    | 52             | 36    | .....          | 54    | 36             | 59    | 44      | 52    | 46          | 51    | 41         | 51    | 47                | 53    | 47          | 50    | 42           | 55    | 46   |  |
| 15... | 49        | 38    | 55          | 27    | 49     | 30    | 63        | 36    | 59             | 34    | .....          | 64    | 36             | 62    | 48      | 63    | 56          | 61    | 51         | 45    | 48                | 62    | 43          | 62    | 43           | 62    | 48   |  |
| 16... | 48        | 36    | 54          | 29    | 50     | 34    | 54        | 39    | 45             | 36    | .....          | 52    | 36             | 48    | 35      | 51    | 43          | 52    | 39         | 51    | 44                | 63    | 39          | 56    | 44           | 53    | 39   |  |
| 17... | 51        | 36    | 37          | 28    | 50     | 33    | 51        | 40    | 43             | 37    | .....          | 47    | 37             | 56    | 36      | 61    | 43          | 59    | 43         | 57    | 46                | 58    | 40          | 59    | 41           | 58    | 36   |  |
| 18... | 39        | 24    | 37          | 23    | 47     | 28    | 40        | 27    | 40             | 25    | .....          | 37    | 24             | 36    | 23      | 43    | 23          | 39    | 21         | 46    | 31                | 49    | 26          | 40    | 23           | 41    | 25   |  |
| 19... | 28        | 20    | 28          | 13    | 31     | 17    | 37        | 23    | 32             | 20    | .....          | 35    | 20             | 37    | 21      | 41    | 27          | 40    | 18         | 44    | 31                | 49    | 24          | 28    | 18           | 39    | 25   |  |
| 20... | 48        | 26    | 31          | 16    | 40     | 20    | 49        | 32    | 37             | 29    | .....          | 54    | 32             | 53    | 33      | 59    | 38          | 55    | 26         | 54    | 41                | 56    | 37          | 48    | 22           | 56    | 39   |  |
| 31... | .....     | ..... | .....       | ..... | .....  | ..... | .....     | ..... | .....          | ..... | .....          | ..... | .....          | ..... | .....   | ..... | .....       | ..... | .....      | ..... | .....             | ..... | .....       | ..... | .....        | ..... |      |  |
| Mns   | 45.6      | 34.3  | 42.7        | 25.9  | 49.0   | 29.2  | 47.9      | 33.9  | 43.9           | 29.6  | .....          | 50.2  | 31.4           | 52.1  | 31.8    | 53.0  | 39.2        | 53.6  | 32.3       | 51.8  | 42.5              | 53.5  | 36.8        | 49.1  | 33.2         | 53.1  | 36.5 |  |

| Date. | New Haven, Conn. |      |         |      |             |      |              |      |              |      |           |      | New York.   |      |         |      |          |      |             |      |               |      |           |      | Pennsylvania. |      |  |  |
|-------|------------------|------|---------|------|-------------|------|--------------|------|--------------|------|-----------|------|-------------|------|---------|------|----------|------|-------------|------|---------------|------|-----------|------|---------------|------|--|--|
|       | Addison.         |      | Albany. |      | Binghamton. |      | Cooperstown. |      | Indian Lake. |      | New York. |      | Clearfield. |      | Easton. |      | Everett. |      | Harrisburg. |      | Philadelphia. |      | Scranton. |      | Wellboro.     |      |  |  |
|       | Max.             | Min. | Max.    | Min. | Max.        | Min. | Max.         | Min. | Max.         | Min. | Max.      | Min. | Max.        | Min. | Max.    | Min. | Max.     | Min. | Max.        | Min. | Max.          | Min. | Max.      | Min. | Max.          | Min. |  |  |
| 1...  | 60               | 45   | 78      | 34   | 67          | 39   | 76           | 42   | 68           | 38   | 65        | 34   | 62          | 51   | 80      | 36   | 73       | 32   | 75          | 42   | 77            | 52   | 77        | 42   | 76            | 29   |  |  |
| 2...  | 64               | 50   | 65      | 54   | 64          | 48   | 63           | 55   | 60           | 50   | 59        | 30   | 65          | 51   | 65      | 32   | 64       | 39   | 69          | 56   | 73            | 58   | 67        | 52   | 66            | 51   |  |  |
| 3...  | 61               | 49   | 57      | 36   | 58          | 44   | 55           | 44   | 56           | 42   | 52        | 29   | 60          | 51   | 65      | 37   | 56       | 51   | 59          | 48   | 64            | 54   | 58        | 47   | 55            | 38   |  |  |
| 4...  | 58               | 45   | 49      | 35   | 55          | 41   | 46           | 37   | 46           | 39   | 45        | 28   | 58          | 45   | 67      | 35   | 59       | 41   | 58          | 45   | 63            | 49   | 51        | 51   | 55            | 35   |  |  |
| 5...  | 47               | 37   | 52      | 35   | 46          | 38   | 42           | 31   | 39           | 32   | 39        | 27   | 49          | 40   | 63      | 37   | 54       | 38   | 54          | 40   | 53            | 46   | 51        | 36   | 51            | 30   |  |  |
| 6...  | 56               | 34   | 60      | 24   | 52          | 35   | 53           | 27   | 46           | 31   | 40        | 30   | 55          | 39   | 60      | 24   | 52       | 35   | 50          | 34   | 54            | 44   | 55        | 30   | 59            | 23   |  |  |
| 7...  | 49               | 31   | 55      | 23   | 48          | 26   | 52           | 20   | 46           | 20   | 49        | 10   | 49          | 41   | 54      | 25   | 49       | 27   | 54          | 34   | 54            | 38   | 54        | 28   | 51            | 20   |  |  |
| 8...  | 56               | 46   | 56      | 42   | 51          | 39   | 51           | 41   | 47           | 35   | 45        | 25   | 58          | 42   | 61      | 38   | 65       | 39   | 60          | 46   | 63            | 53   | 58        | 43   | 55            | 42   |  |  |
| 9...  | 53               | 38   | 57      | 35   | 46          | 29   | 52           | 35   | 45           | 29   | 42        | 23   | 55          | 42   | 54      | 38   | 59       | 33   | 56          | 42   | 57            | 44   | 51        | 37   | 53            | 34   |  |  |
| 10... | 53               | 30   | 47      | 34   | 48          | 25   | 47           | 34   | 46           | 32   | 43        | 10   | 53          | 41   | 47      | 41   | 48       | 33   | 50          | 40   | 56            | 43   | 48        | 34   | 46            | 33   |  |  |
| 11... | 64               | 46   | 75      | 42   | 62          | 44   | 69           | 45   | 62           | 40   | 52        | 24   | 61          | 44   | 75      | 35   | 65       | 37   | 63          | 41   | 63            | 49   | 66        | 44   | 70            | 42   |  |  |
| 12... | 73               | 48   | 76      | 35   | 68          | 38   | 71           | 37   | 66           | 45   | 65        | 29   | 74          | 49   | 73      | 36   | 73       | 35   | 72          | 39   | 71            | 49   | 73        | 40   | 73            | 34   |  |  |
| 13... | 62               | 49   | 62      | 46   | 60          | 45   | 65           | 49   | 56           | 45   | 62        | 44   | 65          | 55   | 72      | 44   | 70       | 38   | 70          | 52   | 69            | 50   | 67        | 53   | 67            | 44   |  |  |
| 14... | 54               | 48   | 66      | 40   | 53          | 43   | 58           | 48   | 58           | 38   | 59        | 27   | 55          | 49   | 69      | 41   | 60       | 41   | 54          | 47   | 52            | 50   | 59        | 48   | 64            | 39   |  |  |
| 15... | 58               | 49   | 70      | 42   | 63          | 47   | 66           | 39   | 60           | 42   | 54        | 26   | 57          | 48   | 67      | 42   | 62       | 49   | 60          | 46   | 56            | 50   | 60        | 47   | 67            | 43   |  |  |
| 16... | 52               | 41   | 55      | 34   | 47          | 38   | 50           | 35   | 43           | 38   | 45        | 31   | 54          | 44   | 60      | 35   | 57       | 38   | 53          | 44   | 54            | 47   | 52        | 36   | 56            | 31   |  |  |
| 17... | 57               | 38   | 54      | 34   | 54          | 40   | 53           | 32   | 52           | 34   | 35        | 17   | 59          | 38   | 58      | 30   | 56       | 34   | 55          | 36   | 61            | 41   | 53        | 36   | 56            | 32   |  |  |
| 18... | 39               | 27   | 55      | 27   | 40          | 28   | 32           | 25   | 34           | 23   | 30        | 16   | 38          | 30   | 35      | 29   | 36       | 30   | 39          | 34   | 43            | 34   | 36        | 28   | 36            | 26   |  |  |
| 19... | 42               | 26   | 38      | 27   | 38          | 28   | 38           | 26   | 34           | 23   | 45        | 26   | 43          | 30   | 45      | 30   | 56       | 31   | 44          | 32   | 44            | 33   | 41        | 30   | 37            | 24   |  |  |
| 20... | 57               | 42   | 59      | 33   | 57          | 38   | 57           | 36   | 52           | 34   | 50        | 38   | 53          | 40   | 61      | 24   | 73       | 26   | 63          | 33   | 61            | 38   | 60        | 34   | 61            | 30   |  |  |
| 21... | 63               | 46   | 60      | 51   | 64          | 47   | 62           | 45   | 58           | 46   | 49        | 37   | 61          | 46   | 68      | 32   | 66       | 43   | 56          | 45   | 62            | 45   | 58        | 48   | 60            | 38   |  |  |
| 22... | 59               | 50   | 63      | 43   | 56          | 39   | 60           | 43   | 54           | 40   |           |      |             |      |         |      |          |      |             |      |               |      |           |      |               |      |  |  |

TABLE 3.—Maximum and minimum temperatures at selected stations, November, 1909. District No. 1—Continued.

| Date. | New Jersey.  |      |                |      |             |      |         |      | Maryland.           |      |            |      |             |      |            |      | Virginia.         |      |                |      |           |      |                 |      |           |      |      |      |    |
|-------|--------------|------|----------------|------|-------------|------|---------|------|---------------------|------|------------|------|-------------|------|------------|------|-------------------|------|----------------|------|-----------|------|-----------------|------|-----------|------|------|------|----|
|       | Asbury Park. |      | Atlantic City. |      | Hightstown. |      | Newton. |      | Martinsburg, W. Va. |      | Baltimore. |      | Dartington. |      | Frederick. |      | Washington, D. C. |      | Millboro, Del. |      | Culpeper. |      | Fredericksburg. |      | Staunton. |      |      |      |    |
|       | Max.         | Min. | Max.           | Min. | Max.        | Min. | Max.    | Min. | Max.                | Min. | Max.       | Min. | Max.        | Min. | Max.       | Min. | Max.              | Min. | Max.           | Min. | Max.      | Min. | Max.            | Min. | Max.      | Min. |      |      |    |
| 1..   | 61           | 49   | 64             | 51   | 71          | 39   | 75      | 39   | 75                  | 32   | 76         | 45   | 75          | 40   | 77         | 37   | 74                | 34   | 77             | 40   | 78        | 45   | 73              | 34   | 78        | 37   | 71   | 48   |    |
| 2..   | 60           | 50   | 61             | 57   | 72          | 40   | 67      | 44   | 74                  | 38   | 78         | 58   | 71          | 55   | 76         | 56   | 68                | 43   | 77             | 60   | 75        | 55   | 75              | 58   | 79        | 61   | 75   | 49   |    |
| 3..   | 62           | 55   | 64             | 54   | 69          | 50   | 63      | 47   | 62                  | 40   | 63         | 53   | 62          | 44   | 64         | 43   | 61                | 35   | 65             | 46   | 66        | 45   | 69              | 37   | 73        | 42   | 63   | 42   |    |
| 4..   | 59           | 46   | 62             | 44   | 61          | 46   | 60      | 37   | 64                  | 47   | 65         | 48   | 62          | 43   | 65         | 47   | 60                | 40   | 66             | 45   | 75        | 38   | 65              | 39   | 69        | 42   | 66   | 46   |    |
| 5..   | 50           | 37   | 51             | 37   | 52          | 36   | 52      | 34   | 59                  | 35   | 57         | 42   | 55          | 38   | 58         | 40   | 58                | 29   | 57             | 39   | 62        | 23   | 59              | 31   | 63        | 34   | 63   | 33   |    |
| 6..   | 56           | 33   | 53             | 38   | 58          | 27   | 59      | 27   | 54                  | 35   | 51         | 49   | 52          | 32   | 52         | 38   | 50                | 38   | 55             | 42   | 55        | 35   | 53              | 41   | 60        | 39   | 55   | 41   |    |
| 7..   | 53           | 41   | 52             | 39   | 53          | 30   | 51      | 33   | 53                  | 32   | 57         | 40   | 55          | 32   | 55         | 33   | 51                | 34   | 57             | 38   | 66        | 34   | 51              | 35   | 55        | 38   | 51   | 36   |    |
| 8..   | 55           | 40   | 58             | 50   | 62          | 29   | 56      | 32   | 69                  | 32   | 67         | 49   | 63          | 43   | 68         | 48   | 70                | 35   | 69             | 69   | 68        | 38   | 65              | 45   | 71        | 47   | 71   | 47   |    |
| 9..   | 60           | 45   | 55             | 48   | 56          | 43   | 53      | 35   | 49                  | 44   | 57         | 45   | 58          | 43   | 57         | 46   | 62                | 45   | 59             | 46   | 64        | 40   | 61              | 45   | 66        | 49   | 53   | 50   |    |
| 10..  | 54           | 45   | 66             | 48   | 60          | 29   | 51      | 22   | 50                  | 44   | 55         | 43   | 51          | 34   | 54         | 43   | 50                | 44   | 55             | 41   | 66        | 38   | 52              | 43   | 69        | 45   | 50   | 43   |    |
| 11..  | 54           | 44   | 58             | 44   | 64          | 34   | 64      | 38   | 61                  | 36   | 61         | 44   | 62          | 34   | 67         | 35   | 67                | 42   | 66             | 37   | 72        | 37   | 66              | 33   | 71        | 35   | 67   | 42   |    |
| 12..  | 74           | 47   | 73             | 47   | 74          | 41   | 76      | 34   | 68                  | 36   | 71         | 46   | 71          | 39   | 74         | 41   | 75                | 39   | 75             | 41   | 77        | 72   | 37              | 75   | 39        | 74   | 42   | 72   | 41 |
| 13..  | 63           | 54   | 61             | 52   | 69          | 45   | 73      | 46   | 65                  | 39   | 73         | 53   | 70          | 38   | 70         | 42   | 68                | 37   | 75             | 76   | 40        | 69   | 39              | 72   | 42        | 64   | 51   | 60   | 43 |
| 14..  | 54           | 49   | 54             | 50   | 56          | 44   | 58      | 46   | 57                  | 43   | 53         | 48   | 54          | 39   | 63         | 49   | 61                | 43   | 58             | 49   | 67        | 42   | 61              | 45   | 64        | 51   | 60   | 43   |    |
| 15..  | 55           | 48   | 56             | 49   | 55          | 43   | 57      | 45   | 66                  | 43   | 62         | 51   | 62          | 48   | 62         | 50   | 69                | 44   | 60             | 48   | 57        | 40   | 62              | 40   | 67        | 46   | 71   | 45   |    |
| 16..  | 54           | 40   | 55             | 43   | 53          | 35   | 51      | 32   | 63                  | 45   | 59         | 49   | 55          | 38   | 63         | 43   | 59                | 43   | 67             | 42   | 65        | 41   | 66              | 42   | 70        | 42   | 71   | 48   |    |
| 17..  | 60           | 46   | 58             | 37   | 61          | 43   | 57      | 37   | 62                  | 45   | 62         | 53   | 60          | 39   | 60         | 36   | 58                | 33   | 64             | 39   | 64        | 42   | 67              | 43   | 71        | 51   | 60   | 39   |    |
| 18..  | 47           | 33   | 43             | 31   | 43          | 33   | 38      | 26   | 42                  | 33   | 45         | 34   | 42          | 35   | 44         | 34   | 48                | 31   | 43             | 31   | 46        | 34   | 43              | 35   | 51        | 36   | 41   | 28   |    |
| 19..  | 42           | 25   | 46             | 30   | 43          | 24   | 37      | 21   | 48                  | 29   | 48         | 34   | 43          | 25   | 47         | 30   | 58                | 31   | 48             | 31   | 45        | 24   | 49              | 22   | 51        | 21   | 51   | 26   |    |
| 20..  | 55           | 31   | 56             | 46   | 62          | 30   | 57      | 27   | 66                  | 28   | 67         | 38   | 59          | 32   | 67         | 30   | 68                | 31   | 67             | 36   | 65        | 36   | 65              | 35   | 68        | 31   | 66   | 39   |    |
| 21..  | 65           | 43   | 61             | 51   | 63          | 38   | 62      | 42   | 70                  | 28   | 72         | 47   | 66          | 33   | 72         | 40   | 66                | 35   | 71             | 47   | 69        | 50   | 70              | 40   | 73        | 47   | 69   | 47   |    |
| 22..  | 59           | 51   | 59             | 51   | 71          | 47   | 59      | 45   | 73                  | 51   | 74         | 54   | 68          | 51   | 72         | 52   | 75                | 47   | 74             | 52   | 73        | 60   | 71              | 48   | 75        | 50   | 72   | 49   |    |
| 23..  | 64           | 36   | 58             | 38   | 66          | 39   | 60      | 32   | 50                  | 49   | 64         | 37   | 65          | 38   | 63         | 35   | 69                | 35   | 63             | 34   | 66        | 40   | 66              | 40   | 70        | 41   | 51   | 39   |    |
| 24..  | 40           | 34   | 43             | 32   | 39          | 30   | 34      | 28   | 38                  | 29   | 37         | 33   | 39          | 31   | 39         | 33   | 48                | 28   | 37             | 32   | 50        | 33   | 41              | 31   | 42        | 32   | 39   | 29   |    |
| 25..  | 35           | 31   | 35             | 31   | 33          | 30   | 33      | 26   | 50                  | 29   | 51         | 32   | 39          | 30   | 53         | 35   | 45                | 26   | 53             | 35   | 43        | 34   | 53              | 35   | 55        | 35   | 54   | 29   |    |
| 26..  | 48           | 31   | 48             | 33   | 47          | 31   | 48      | 26   | 51                  | 34   | 53         | 40   | 46          | 35   | 51         | 35   | 55                | 34   | 53             | 37   | 51        | 35   | 56              | 30   | 56        | 34   | 57   | 28   |    |
| 27..  | 48           | 34   | 46             | 33   | 52          | 27   | 47      | 25   | 53                  | 29   | 53         | 37   | 51          | 33   | 55         | 28   | 60                | 26   | 57             | 32   | 53        | 29   | 52              | 25   | 54        | 28   | 64   | 29   |    |
| 28..  | 56           | 35   | 57             | 33   | 54          | 25   | 59      | 21   | 61                  | 26   | 66         | 35   | 59          | 26   | 66         | 27   | 72                | 26   | 63             | 29   | 60        | 27   | 59              | 25   | 65        | 26   | 71   | 31   |    |
| 29..  | 55           | 31   | 47             | 33   | 50          | 32   | 51      | 31   | 54                  | 26   | 60         | 38   | 56          | 35   | 62         | 35   | 60                | 40   | 59             | 36   | 51        | 28   | 55              | 39   | 59        | 39   | 59   | 34   |    |
| 30..  | 42           | 32   | 43             | 29   | 45          | 24   | 44      | 22   | 46                  | 31   | 48         | 35   | 45          | 30   | 48         | 24   | 46                | 20   | 47             | 33   | 45        | 27   | 46              | 31   | 48        | 30   | 50   | 25   |    |
| 31..  |              |      |                |      |             |      |         |      |                     |      |            |      |             |      |            |      |                   |      |                |      |           |      |                 |      |           |      |      |      |    |
| Mns   | 54.6         | 40.5 | 54.4           | 42.0 | 57.1        | 35.6 | 55.0    | 33.0 | 58.4                | 36.3 | 60.2       | 42.8 | 57.2        | 37.3 | 60.7       | 38.8 | 61.0              | 35.8 | 61.1           | 40.4 | 62.4      | 37.4 | 60.4            | 37.5 | 64.6      | 39.7 | 61.2 | 38.9 |    |